MONTECITO RANCH

APPENDIX C

AIR QUALITY IMPACT ASSESSMENT

for the

DRAFT FINAL ENVIRONMENTAL IMPACT REPORT
SP01-001; VTM 5250RPL6; P04-045; P09-023; GPA 04-013; R04-022;
STP 08-019; ER 09-013; LOG NO. 01-09-013; SCH NO. 2002021132

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APPENDIX C – AIR QUALITY IMPACT ASSESSMENT INFORMATION FOR THE READER

This document consists of the Air Quality Impact Assessment (AQIA) for the Montecito Ranch Project (Proposed Project or Project) and analyzes air quality-related elements associated with construction and operation of the Project. Since circulation of the Draft Environmental Impact Report (EIR) of the Proposed Project and associated technical reports, there have been some changes in Project description.

The AQIA that circulated with the Draft EIR indicated that a 10.6-acre future school site would be located off of future Montecito Ranch Road in the vicinity of the proposed parks and wastewater reclamation facility. At this time, this use is being eliminated from the Final EIR, and hence the AQIA. Any graphic or text references to the future school site should be ignored by the reader. Upon Project approval, the future school site will be excluded from the Project and placed into open space. This alteration in the Project description would not change the conclusion with regard to the level of significance of impacts because removal of the future school site and placement into open space would be beneficial as less grading would be required during the construction period and fewer greenhouse gas (GHG) emissions would be produced during Project operation.

The fuel modification zone for the Project has been revised since public circulation based on requests from the Ramona Fire District. A larger fuel modification zone has now been incorporated along the northeastern portion of the Proposed Project development area, allowing for a 100- to 150-foot setback, instead of the 100-foot setback previously proposed. The modified impact footprint is reflected in the Final EIR on revised Figures 1-6 through 1-9. This alteration would not change significance conclusions because revisions to the fuel modification zone would actually result in an additional 2.35 acres of open space adjacent to the proposed residences, which would help reduce the Project's impacts to global climate change by preserving additional vegetation.

In addition, additional clarification text has been provided in the Final EIR related to global climate change. Climate change modifications in Subchapter 2.2, Air Quality, of the Final EIR include updates to state goals and discussion of the California Air Pollution Control Officers Association (CAPCOA) thresholds. These changes in the Final EIR would not affect the conclusion that impacts associated with global climate change are less than significant because the changes are merely clarifications to existing conditions and do not affect the analysis.

Each of the above-cited revisions are now included as part of the public record and will be before the Board of Supervisors during their consideration of the Project.

Air Quality Impact Assessment

for the

Montecito Ranch Project

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1.0 Introduction

This report presents an assessment of potential air quality impacts and a health risk evaluation for emissions associated with the proposed Montecito Ranch Project in the unincorporated County of San Diego in the Ramona Community Planning Area. The evaluation addresses the potential for air emissions during construction and operation of the project.

The project site is located within the unincorporated County of San Diego. The proposed Montecito Ranch project (hereinafter referred to as Proposed Project) includes the Montecito Ranch Specific Planning Area (SPA), and associated off-site road improvements and pipeline connections. The 935.2-acre Project site is located in the community of Ramona in the unincorporated area of San Diego County within the County's Ramona Community Planning Area. The SPA is approximately one mile northwest of the Ramona Town Center. State Route (SR) 78 borders the northern SPA boundary, while Montecito Way extends southerly from the southernmost SPA boundary. Cedar Street and Summer Glen Road also are adjacent to the southern SPA boundary while Ash Street is adjacent to the eastern boundary. Existing improvements within the SPA include dirt roads and the historic Montecito Ranch House. The southern portion of the SPA has historically been used for farming oat hay and cattle grazing. A 220.5-acre area in the southwestern portion of the SPA has been set aside as biological open space, as mitigation for past farming activity.

The Proposed Project would include the development of a rural residential community consisting of 417 single-family residential units on lots ranging in size from approximately 0.5 to 1.8 acres. Horses would be allowed within lots 1 through 30 in the eastern portion of the site. The Project would dedicate land for various public improvements including a historic park site, local park site (fully developed), charter high school site, and open space. The northern portion of the historic park site includes the historic Montecito Ranch House, which would be renovated by the Proposed Project. The southern portion of the historic park site would include equestrian staging area, as well as act as an overflow parking area for the parks and school sites. The equestrian facilities would include several 15 feet by 15 feet horse pens, an 80-foot diameter round pen, an animal wash down area, hitching posts, a 100 feet by 150 feet arena with bleacher seating, a picnic area, restrooms, and parking (including horse trailer parking). This area would connect to the regional trail system.

The Proposed Project includes two wastewater management options. Wastewater Management Option 1, Off-site Sewer Connection, would include the extension of a sewer main off-site to connect to the Santa Maria Wastewater Treatment Plant (WTP). Wastewater Management Option 2 is an on-site wastewater reclamation facility (WRF) to treat all on-site wastewater and utilize the reclaimed water to irrigate on-site public landscaped areas, as well as the private Homeowners' Association areas. Option 1 would result in a total of 573.8 acres of dedicated open space within the Project site and Option 2 would result in 549.1 acres of dedicated open space due to the space requirements associated with the WRF. Since a final determination as to the most appropriate approach to treatment of Project wastewater has not yet been made, Wastewater Management Option 1, Off-site Sewer Connection, is addressed equally with Wastewater Management Option 2, WRF. The Project also includes off-site roadway and water improvements to support the SPA development.

The homes would be built in two separate units. Unit 1 would consist of 243 single-family residential units constructed on 165.3 acres, and Unit 2 would include 174 single-family residential units constructed on 128.4 acres. Unit 1 would include 8.4 acres of public streets. Unit 2 would include the parks, high school site, and WRF, as well as 19.6 acres of public streets.

Access to the proposed Montecito Ranch development would be via: (1) Ash Street from Pine Street (SR 78) and (2) Montecito Way and Montecito Road from SR 67/Main Street. To accommodate Project traffic and improve traffic flow in the vicinity, the Project would widen segments of Ash Street, Montecito Way, and Montecito Road. In addition, to mitigate Project-related traffic impacts, improvements would be required to the intersections of Ash Street/Pine Street (SR 78), Main Street (SR 67)/Pine Street (SR 78), Montecito Road/Montecito Way, Main Street (SR 67)/Montecito Road, and SR 67/Highland Valley Road/Dye Road.

The Proposed Project would require construction of off-site utility improvements to provide water service to the Project. One approximately 4,000-foot (0.75-mile) long, 12-inch polyvinyl chloride (PVC) water line would be extended northerly along Montecito Way to the Project site from the existing 24-inch main in Montecito Road. A second 12-inch PVC water line would be extended from the existing 14-inch line in Pine Street, approximately 4,000 feet (0.75 mile) westerly within Ash Street to the Project site. The proposed off-site connections would be installed during construction of the proposed improvements to Montecito Way and Ash Street. In addition, a water storage tank would be installed just west of the Project site within an adjacent property. This tank would hold 1.26 million gallons under Wastewater Management Option 1 and 0.91 million gallons under Option 2. (The decrease under Option 2 is due to decreased use of potable water for irrigation.) A pipeline would connect the water storage tank to the proposed pipeline within Montecito Way. This pipeline would be installed under a 20-foot-wide access road to the water storage tank. The water storage tank and associated pipelines and roadways would disturb approximately 2.2 acres off site. The Proposed Project also would include the installation of a water booster pump station on a 10,000-square foot (0.2-acre) lot at the northwestern corner of the Montecito Road/Montecito Way intersection.

This report presents an evaluation of existing conditions in the project vicinity, an assessment of potential impacts associated with project construction and operation, an evaluation of impacts associated with project-generated traffic, and a discussion of cumulative impacts.

2.0 Existing Conditions

2.1 Existing Setting

As discussed in the Introduction, the project is proposed to be constructed to serve the Montecito Ranch single-family residential development located in northern San Diego County.

2.2 Climate and Meteorology

The project site is located in the San Diego Air Basin (SDAB). The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. Figure 1 provides a graphic representation of the prevailing winds in the project vicinity, as measured at the San Diego Air Pollution Control District's (APCD's) Escondido Monitoring Station (the closest meteorological monitoring station to the site). The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality.

Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone, commonly known as smog.

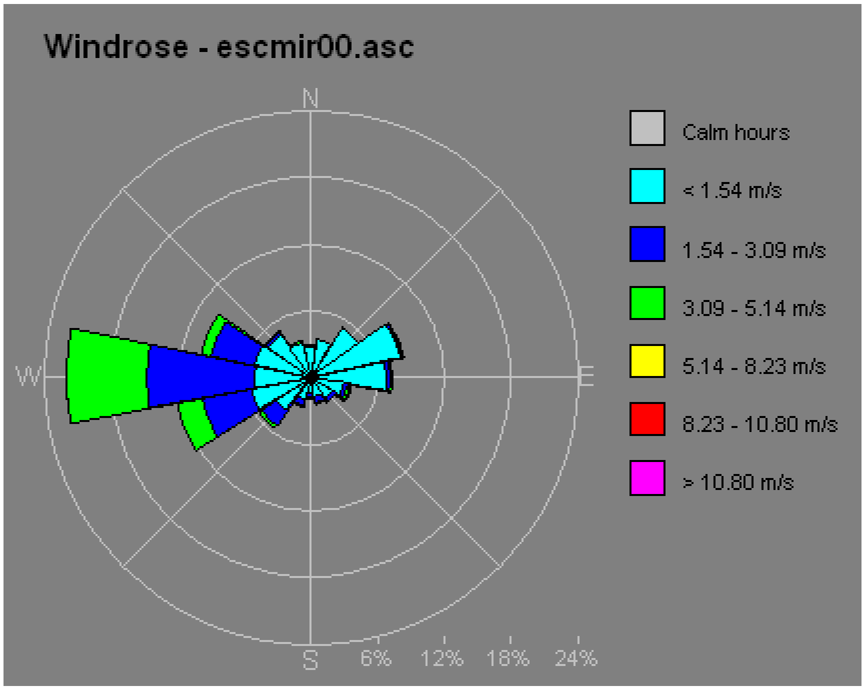


Figure 2. Wind Rose – Escondido Monitoring Station

2.3 Regulatory Setting

Air quality is defined by ambient air concentrations of specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

In September 1997, the EPA promulgated 8-hour O_3 and 24-hour and annual $PM_{2.5}$ national standards (particulate matter less than 2.5 microns in diameter). However, due to a lawsuit in May 1999, the United States District Court rescinded these standards and the EPA's authority to enforce them. Subsequent to an appeal of this decision by the EPA, the United States Supreme

Court upheld these standards in February 2001. As a result, this action has initiated a new planning process to monitor and evaluate emission control measures for these pollutants. The EPA is moving forward to develop policies to implement these standards.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The California Air Resources Board (ARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. On April 15, 2004, the SDAB was designated a basic nonattainment area for the 8-hour NAAQS for O_3. The SDAB is in attainment for the NAAQS for all other criteria pollutants. The SDAB is currently classified as a nonattainment area under the CAAQS for O_3 and PM_{10}.

The ARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The ARB is responsible for the development, adoption, and enforcement of the state's motor vehicle emissions program, as well as the adoption of the CAAQS. The ARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS. The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The APCD is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County.

The APCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, and most recently in 2004. The RAQS outlines APCD's plans and control measures designed to attain the state air quality standards for O_3. The APCD has also developed the air basin's input to the SIP, which is required under the Federal Clean Air Act for areas that are out of attainment of air quality standards. The SIP includes the APCD's plans and control measures for attaining the O_3 NAAQS. The SIP is also updated on a triennial basis. The latest SIP update was submitted by the ARB to the EPA in 1998. The attainment schedule in the SIP called for the SDAB to attain the 1-hour NAAQS for O_3 by 1999, a goal which was met in the SDAB. The latest update to the SIP, which is under preparation, will set a new attainment date for the 8-hour NAAQS for O_3.

The RAQS relies on information from ARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The ARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. As such, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS. In the event that a project would propose development which is less dense than anticipated within the general plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the general plan and SANDAG's growth projections, the project might be in conflict with the RAQS and SIP, and might have a potentially significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the APCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for O_3.

Table 1 presents a summary of the ambient air quality standards adopted by the federal and California Clean Air Acts.

2.4 Background Air Quality

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring stations to the project site are the Escondido East Valley Parkway station, and the San Diego 12th Avenue station (which is the closest station that measures SO_2). Because both the Escondido and San Diego 12th Avenue monitoring stations are located in areas where there is substantial traffic congestion, it is likely that pollutant concentrations measured at those monitoring stations are higher than concentrations that would be observed or measured in the Project area, and would thus provide a conservative estimate of background ambient air quality. Ambient concentrations of pollutants over the last three years are presented in Table 2.

The federal 8-hour ozone standard, which was formally adopted in 2001 after legal arguments with the EPA, was exceeded at the Escondido monitoring station three times in 2003, twice in 2004, and once in 2005. The SDAB was classified as nonattainment for the 8-hour NAAQS for O_3. The federal 24-hour PM_{10} standard was exceeded once at the Escondido monitoring station in 2003; however, the exceedance occurred during the Cedar Fire event in San Diego County. Likewise, the Escondido monitoring station measured high short-term levels of CO and NO_2 in 2003 during the Cedar Fire event. The Escondido monitoring station measured exceedances of the state PM_{10} and $PM_{2.5}$ standards during the period from 2003 to 2005. The data from the monitoring stations indicate that air quality is in attainment of all other federal standards.

Table 1
AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS		
		Concentration	Method	Primary	Secondary	Method
Ozone	1 hour	0.09 ppm (180 μg/m^3)	Ultraviolet Photometry	--	--	Ethylene Chemiluminescence
	8 hour	0.070 ppm (137 μg/m^3)		0.08 ppm (157 μg/m^3)	0.08 ppm (157 μg/m^3)	
Carbon Monoxide	8 hours	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm (56 μg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 μg/m^3)	0.053 ppm (100 μg/m^3)	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 μg/m^3)		--	--	
Sulfur Dioxide (SO_2)	Annual Average	--	Ultraviolet Fluorescence	0.03 ppm (80 μg/m^3)	--	Pararosaniline
	24 hours	0.04 ppm (105 μg/m^3)		0.14 ppm (365 μg/m^3)	--	
	3 hours	--		--	0.5 ppm (1300 μg/m^3)	
	1 hour	0.25 ppm (655 μg/m^3)		--	--	
Respirable Particulate Matter (PM_{10})	24 hours	50 μg/m^3	Gravimetric or Beta Attenuation	150 μg/m^3	150 μg/m^3	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 μg/m^3		--	--	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 μg/m^3	Gravimetric or Beta Attenuation	15 μg/m^3	--	Inertial Separation and Gravimetric Analysis
	24 hours	--		35 μg/m^3	--	
Sulfates	24 hours	25 μg/m^3	Ion Chromatography	--	--	--
Lead	30-day Average	1.5 μg/m^3	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 μg/m^3	1.5 μg/m^3	
Hydrogen Sulfide Vinyl Chloride	24 hours	0.010 ppm (26 μg/m^3)	Gas Chromatography	--	--	--

ppm= parts per million
μg/m^3 = micrograms per cubic meter
mg/m^3= milligrams per cubic meter
Source: California Air Resources Board 2007

Table 2
Ambient Background Concentrations
(ppm unless otherwise indicated)

Pollutant	Averaging Time	2003	2004	2005	Most Stringent Ambient Air Quality Standard	Monitoring Station
Ozone	8 hour	0.083	0.086	0.079	0.070	Escondido
	1 hour	0.105	0.099	0.095	0.09	Escondido
PM_{10}	Annual	32.7 μg/m^3	27.3 μg/m^3	22 μg/m^3	20 μg/m^3	Escondido
	24 hour	179 μg/m^3[2]	57 μg/m^3	36 μg/m^3	50 μg/m^3	Escondido
$PM_{2.5}$	Annual	14.2 μg/m^3	14.1 μg/m^3	12.3 μg/m^3	12 μg/m^3	Escondido
	24 hour	69.2 μg/m^3[2]	67.3 μg/m^3	43.1 μg/m^3	35 μg/m^3	Escondido
NO_2	Annual	0.020	0.012	0.011	0.030	Escondido
	1 hour	0.135	0.099	0.077	0.18	Escondido
CO	8 hour	10.64[2]	3.61	3.10	9.0	Escondido
	1 hour	12.7[2]	6.3	5.9	20	Escondido
SO_2	Annual	0.005	0.004	0.002	0.03	San Diego
	24 hour	0.008	0.008	0.007	0.04	San Diego
	3 hour	0.019	0.020	0.019	0.5[1]	San Diego
	1 hour	0.036	0.042	0.040	0.25	San Diego

[1]Secondary NAAQS
[2]Maximum measured pollutant concentrations occurring during the Cedar Fire event
Source: www.arb.ca.gov/aqd/aqd.htm (Measurements of all pollutants at Escondido-E Valley Parkway station, except SO_2,)
www.epa.gov/air/data/monvals.html (1-hour and 3-hour SO_2 and 1-hour CO)

Concentrations of CO at the Escondido monitoring station tend to be among the highest in the San Diego Air Basin, due to the fact that the monitor is located along East Valley Parkway in a congested area in downtown Escondido. The station sees higher concentrations of CO than have historically been measured elsewhere in San Diego County and the background data are not likely to be representative of background ambient CO concentrations at the Project site, due to the site's location in a less developed area. Since 2000, CO has not been monitored at other stations in northern San Diego County.

3.0 Thresholds of Significance

Guidelines to address the significance of air quality impacts are based on Appendix G of the State CEQA Guidelines, which provides guidance that a project would have a significant environmental impact if it would:

1. Conflict or obstruct the implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP);
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and volatile organic compounds (VOCs);
4. Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations; or
5. Create objectionable odors affecting a substantial number of people.

As stated above, projects that propose development that is consistent with the growth anticipated by the general plans and with growth forecasts developed by SANDAG for the applicable major statistical area (MSA) would be consistent with the RAQS and SIP. Also, projects that are consistent with the SIP rules (i.e., the federally-approved rules and regulations adopted by the APCD) are consistent with the SIP. Thus projects would be required to conform with measures adopted in the RAQS (including use of low-VOC architectural coatings, use of low-NO_x water heaters, and compliance with rules and regulations governing stationary sources) and would also be required to comply with all applicable rules and regulations adopted by the APCD.

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation; or (b) result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and volatile organic compounds (VOCs), project emissions may be evaluated based on the quantitative emission thresholds established by the San Diego APCD. As part of its air quality permitting process, the APCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIA).

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. Since the APCD does not have AQIA thresholds for emissions of VOCs, the use of the threshold for VOCs from the CEQA Air Quality Handbook for the South Coast Air Quality Management District (SCAQMD), which has stricter standards for emissions of VOCs than San Diego, is appropriate. The screening thresholds are included in the table below.

Table 3
SCREENING-LEVEL CRITERIA FOR AIR QUALITY IMPACTS

Pollutant	Total Emissions		
Construction Emissions			
	Lb. per Day		
Respirable Particulate Matter (PM_{10})	100		
Respirable Particulate Matter ($PM_{2.5}$)	55		
Oxides of Nitrogen (NO_x)	250		
Oxides of Sulfur (SO_x)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	75		
Operational Emissions			
	Lb. Per Hour	Lb. per Day	Tons per Year
Respirable Particulate Matter (PM_{10})	---	100	15
Respirable Particulate Matter ($PM_{2.5}$)	---	55	10
Oxides of Nitrogen (NO_x)	25	250	40
Oxides of Sulfur (SO_x)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	55	10[2]

In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the State and Federal Ambient Air Quality Standards, including appropriate background levels. For nonattainment pollutants (ozone, with ozone precursors NO_x and VOCs) and PM_{10}, if emissions exceed the thresholds shown in Table 3, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or Hazardous Air Pollutants (HAPs). In San Diego County, the County Department of Planning and Land Use identifies an excess cancer risk level of 1 in 1 million or less for projects that do not implement Toxics Best Available Control Technology (T-BACT), and an excess cancer risk level of 10 in 1 million or less for projects that do implement T-BACT. The significance threshold for non-cancer health effects is a health hazard index of one or less. These significance thresholds are consistent with the San Diego Air Pollution Control District's Rule 1210 requirements for stationary sources. If a project has the potential to result in emissions of any TAC or HAP which result in a cancer risk of greater than 1 in 1 million without T-BACT, 10 in 1 million with T-BACT, or health hazard index of one or more, the project would be deemed to have a potentially significant impact.

With regard to evaluating whether a project would have a significant impact on sensitive receptors, air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Any project which has the potential to directly impact a sensitive receptor located within 1 mile and results in a health risk greater than the risk significance thresholds discussed above would be deemed to have a potentially significant impact.

Section 6318 of the San Diego County Zoning Ordinance requires all commercial and industrial uses "be operated as not to emit matter causing unpleasant odors which is perceptible by the average person at or beyond any lot line of the lot containing said uses." Section 6318 goes on to further provide specific dilution standards that must be met "at or beyond any lot line of the lot containing the uses." APCD Rule 51 (Public Nuisance) also prohibits emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health or safety of any person. A project that proposes a use which would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

The impacts associated with construction and operation of the project were evaluated for significance based on these significance criteria.

4.0 Impacts

This impact assessment presents an analysis of impacts associated with construction and operation of the proposed Montecito Ranch Project. Operational impacts would include emissions associated with the project, including traffic, at full buildout, and would continue for the life of the project.

Three characteristic types of potential impacts are associated with general development as follows:

1. Short-term emissions of dust and heavy equipment exhaust during construction.

2. Regional emissions of vehicular exhaust from project resident travel.

3. Micro-scale accumulation of vehicular exhaust (carbon monoxide) creating possible air pollution "hot spots."

Residential developments are generally not sources of toxic or nuisance air emissions except possibly from short-term construction activities. Project-related air quality impacts were addressed using guidance documents prepared by a wide variety of agencies (EPA, Air Resources Board, Caltrans, etc.).

4.1 RAQS/SIP Consistency

The project site is mostly vacant land and is designated as a Specific Plan area within the Ramona Community Plan. The proposed project, a "clustered" rural residential community of 417 single-family residences, is situated on 935 acres. The 417 residences exist in two separate units. Unit 1 of the development would contain 246 residential dwellings and Unit 2 would be comprised of the remaining 171 residences. Lots range in size from 0.5 acres to 1.8 acres. Development goals for the Ramona area are to keep the area semi-rural. The proposed project is consistent with those goals. The regional air quality plan is based upon the expected level of development for the area. The project is consistent with planning area growth forecasts. No air quality planning incompatibility will arise from project implementation.

Preliminary SANDAG forecasts for San Diego County predict a 45 percent increase in the number of housing units in the Ramona Subregional Area in the 30 years between 2000 and 2030 (www.sandag.org). This represents an increase of 4,096 housing units from existing levels. The 417 housing units comprising this project represent 10.2 percent of the forecast total. The development density and magnitude are both consistent with development goals and projections for the Ramona area.

4.2 Air Pollutant Emissions

4.2.1 Construction Activity Impacts

Emissions of pollutants such as fugitive dust and heavy equipment exhaust that are generated during construction would generally be highest near the construction site. Emissions from the construction phase of the project were estimated through the methodologies recommended in the South Coast Air Quality Management District's CEQA Air Quality Handbook (SCAQMD 1993). Emission factors from the California Air Resources Board's OFFROAD model (ARB 2006) for the San Diego Air Basin were used to estimate emissions from heavy equipment. Emissions of fugitive dust were estimated based on methodologies recommended in the URBEMIS Model (Rimpo and Associates 2007), and in the SCAQMD's CEQA Air Quality Handbook for earthmoving activities.

Construction emission calculations were based on the construction phases and equipment and crew requirements identified for the project by the project developer and construction contractors. Tables 4a through 4e present a summary of the construction phases and crew and equipment needs for each construction phase for the Project itself. Because the residential and commercial development will be constructed in three main phases, each main phase of construction will occur for each of the three residential/commercial project phases.

Construction impacts include emissions from heavy construction equipment operating at the site, worker commutes, use of architectural coatings, asphalt offgassing, and fugitive dust generated during grading activities. Because the Project will be constructed in two units, it was assumed that each unit would be constructed separately. Unit 1 involves construction of 243 single-family residential units, along with offsite road improvements. Unit 2 involves construction of 174 single-family units, along with the local and historical parks, charter high school site, and WRF, along with offsite road improvements.

Fugitive dust emissions were estimated using the default emission factor for PM_{10} emissions from the URBEMIS Model. This emission factor is based on the report prepared by the Midwest Research Institute (MRI) for the SCAQMD entitled *Improvement of Specific Emission Factors (BACM Project No. 1) Final Report* (MRI 1996), and reflects uncontrolled emissions. It was assumed, based on URBEMIS default assumptions, that 25 percent of the total area could be graded in a single day; thus for Unit 1, the maximum daily grading would be estimated at 41.325 acres, and for Unit 2, the maximum daily grading would be estimated at 32.05 acres.

For roadway improvements, emissions of fugitive dust were calculated for the proposed improvements to Ash Street, Montecito Way, and Montecito Road. For Ash Street, the estimated total cut and fill quantities for the widening of the roadway are 9,400 and 3,400 cubic yards respectively, with 6,000 cubic yards to be used on the Project site. For Montecito Way, the estimated total cut and fill quantities for the widening of the roadway are 11,800 and 3,300 cubic yards, respectively, with 8,500 cubic yards to be used on the Project site. For Montecito Road, the estimated total cut and fill quantities for the widening of the roadway are 14,100 and 26,600 cubic yards, respectively, with 12,500 cubic yards of suitable fill material to be provided from the Montecito Ranch SPA site. The emissions for fugitive dust from roadway improvements, and haul truck trips to transport cut/fill between the Project site and roadways, were calculated using the URBEMIS Model.

Table 4a
Construction Phases and Equipment/Crew Requirements
Rough Grading

Construction Phase	Duration, days	Equipment/Crew	Number
Phase 1			
Clear and Grub	4	D-8R Dozer	1
		966 Loader	1
		Tub Grinder	1
		High Side End Dumps	4
Demolition	10	D-8R Dozer	1
		966 Loader	1
		Tub Grinder	1
		High Side End Dumps	4
Mass Excavation	25	657E Scraper	8
		D-10R Dozer	1
		D-9L Dozer	1
		834B Rubber Tired Dozer	1
		16G Blade (Motor Grader)	1
		4000 Gallon Water Truck	3
Remove/Recompact	65	High Side End Dumps (dump trucks)	4
		966 Loader	1
		Roller Compactors	4
Finish Grade	18	Water Truck	3
		Motor Grader	1
		657E Scraper	8
Erosion Control	123	446B Rubber Tire Backhoe	2
		Crew Truck	1
Phase 2			
Clear and Grub	5	D-8R Dozer	1
		966 Loader	1
		Tub Grinder	1
		High Side End Dumps	4
Mass Excavation	15	657E Scraper	8
		D-10R Dozer	1
		D-9L Dozer	1
		834B Rubber Tired Dozer	1
		16G Blade (Motor Grader)	1
		4000 Gallon Water Truck	3
Remove/Recompact	69	High Side End Dumps (dump trucks)	4
		966 Loader	1
		Roller Compactors	4
Finish Grade	35	Water Truck	3
		Motor Grader	1
		657E Scraper	8
Erosion Control	141	446B Rubber Tire Backhoe	2
		Crew Truck	1

Table 4b
Construction Phases and Equipment/Crew Requirements
Phase 1 Underground Utilities and Surface Improvements

Construction Phase	Duration, days	Equipment/Crew	Number
		Underground Utilities	
Storm Drain	88	245 Excavator	1
		235 Excavator with Compaction Wheel	1
		966 Loader	1
		2000 Gallon Water Truck	1
		Crew Truck	1
Sewer	80	245 Excavator	1
		235 Excavator with Compaction Wheel	1
		966 Loader	1
		2000 Gallon Water Truck	1
		Crew Truck	1
Water	60	245 Excavator	1
		235 Excavator with Compaction Wheel	1
		966 Loader	1
		2000 Gallon Water Truck	1
		Crew Truck	1
Dry Utilities	88	446B Backhoe	2
		950 Loader	1
		2000 Gallon Water Truck	1
		Surface Improvements	
Balance/Fine Grade	75	14G Blade (Motor Grader)	2
		623 Scraper	1
		Vibratory Roller	1
		2000 Gallon Water Truck	1
Curb & Gutter/Sidewalks/ Driveways	82	Curb Machine (Concrete Pavers)	1
		Pavers	1
Street Lights	14	Crane	1
Base/AC Paving	20	Paving Machine	1
		Roller	3
Signage/Striping	15	Skiploader	1
		Crew Truck	1
		Landscaping	
Landscaping – Planting & Irrigation, Trails, Parks	88	Landscaping Trucks	3

Table 4c
Construction Phases and Equipment/Crew Requirements
Phase 2 Underground Utilities and Surface Improvements

Construction Phase	Duration, days	Equipment/Crew	Number
		Underground Utilities	
Storm Drain	88	245 Excavator	1
		235 Excavator with Compaction Wheel	1
		966 Loader	1
		2000 Gallon Water Truck	1
		Crew Truck	1
Sewer	80	245 Excavator	1
		235 Excavator with Compaction Wheel	1
		966 Loader	1
		2000 Gallon Water Truck	1
		Crew Truck	1
Water	60	245 Excavator	1
		235 Excavator with Compaction Wheel	1
		966 Loader	1
		2000 Gallon Water Truck	1
		Crew Truck	1
Dry Utilities	88	446B Backhoe	2
		950 Loader	1
		2000 Gallon Water Truck	1
		Surface Improvements	
Balance/Fine Grade	75	14G Blade (Motor Grader)	2
		623 Scraper	1
		Vibratory Roller	1
		2000 Gallon Water Truck	1
Curb & Gutter/Sidewalks/ Driveways	82	Curb Machine (Concrete Pavers)	1
		Pavers	1
Street Lights	14	Crane	1
Base/AC Paving	20	Paving Machine	1
		Roller	3
Signage/Striping	15	Skiploader	1
		Crew Truck	1
		Landscaping	
Landscaping – Planting & Irrigation, Trails, Parks	88	Landscaping Trucks	3

Table 4d
Construction Phases and Equipment/Crew Requirements
House Construction
(Both Phases)

Construction Phase	Duration, days	Equipment/Crew	Number
House Construction	500	Cranes	2
		Generators	4
		Forklifts	8
		Crew Trucks	2

Table 4e
Construction Phases and Equipment/Crew Requirements
Roadway Improvements

Construction Phase	Duration, days	Equipment/Crew	Number
Grading	120	14G Blade (Motor Grader)	2
		623 Scraper	1
		Vibratory Roller	1
		2000 Gallon Water Truck	1
Curbs & Gutters	30	Curb Machine (Concrete Pavers)	1
		Pavers	1
Base/AC Paving	120	Paving Machine	1
		Roller	3
Signage/Striping	15	Skiploader	1
		Crew Truck	1

In accordance with the San Diego County Grading Ordinance, Section 87.428, dust control measures must be implemented for all grading projects taking place in the County of San Diego. The Grading Ordinance requires that:

> "All clearing and grading shall be carried out with dust control measures adequate to prevent creation of a nuisance to persons or public or private property. Clearing, grading or improvement plans shall require that measures such as the following be undertaken to achieve this result: watering, application of surfactants, shrouding, control of vehicle speeds, paving of access areas, or other operational or technological measures to reduce dispersion of dust."

These measures constitute best management practices for dust control. The SCAQMD's Air Quality Handbook, Table 11-4, provides control efficiencies to estimate the efficiency of the dust control measures required by the Grading Ordinance. Best management practices to reduce the amount of fugitive dust generated from construction of the proposed project include the following:

- Three applications of water daily during grading between dozer/scraper passes
- Paving, chip sealing or chemical stabilization of internal roadways after completion of grading
- Use of sweepers or water trucks to remove "track-out" at any point of public street access
- Stabilization of dirt storage piles by chemical binders, tarps, fencing or other erosion control
- Reduce speeds on unpaved surfaces to 15 mph or less
- Water unpaved roads 3 times daily
- Replace ground cover in disturbed areas quickly
- Control of fugitive dust during loading/unloading activities – 30-65 percent
- Application of soil stabilizers to inactive sites

These measures serve as best management practices for dust control and were included as part of the project design, but serve as effective mitigation measures for fugitive dust. Fugitive dust from grading operations was calculated using the URBEMIS Model, Version 9.2.0, with default assumptions regarding the grading emission factor. It should be noted that the latest version of the URBEMIS model does not contain San Diego-specific emission factors.

For the roadway improvements, it was assumed that 2 acres/day would be paved. It was also assumed that heavy-duty truck traffic would travel 50 miles per day based on the approximate round trip distance from San Marcos/Escondido to Ramona, and that workers would commute the same distance to the construction site.

Based on the SCAQMD's guidance for estimating emissions of $PM_{2.5}$ (*Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 CEQA Significance Thresholds*, SCAQMD 2006), emissions of fugitive PM_{10} are comprised of approximately 21 percent $PM_{2.5}$; heavy equipment PM_{10} is approximately 89 percent $PM_{2.5}$, and other combustion emissions are approximately 99 percent. These fractions were used to estimate emissions of $PM_{2.5}$ during construction.

Architectural coatings were assumed to contain up to 250 grams per liter of VOCs, and were assumed to be applied with high pressure-low volume spray guns and/or hand application to reduce emissions in accordance with SCAQMD CEQA Handbook, Table A11-13-D. Emissions of ROG associated with asphalt offgassing were estimated using the URBEMIS emission factor of 2.62 lbs/acre paved, assuming 1 acre/day of roadway would be paved.

Tables 5a through 5e present emissions associated with each phase of construction for the project. It should be noted that grading could occur in Units 1 and 2 at the same time; however, the amount of surface disturbance and the heavy equipment, truck trips, and worker trips would remain the same on a daily basis. It is assumed that grading would occur first, and subsequent construction activities would occur following site grading. Table 5f presents an evaluation of the maximum daily construction emissions assuming individual construction phases such as utilities installation and house construction could occur simultaneously.

Table 5a
MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS
Rough Grading (with dust control measures)

Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Phase 1						
Fugitive Dust - Grading	-	-	-	-	49.90	10.42
Heavy Equipment Exhaust	86.83	25.63	123.00	43.68	11.25	10.01
Construction Truck Emissions	7.22	1.90	29.09	0.06	0.93	0.92
Worker Travel – Vehicle Emissions	25.72	1.33	2.45	0.02	0.17	0.17
TOTAL	**119.77**	**28.86**	**154.54**	**43.76**	**62.25**	**21.52**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Phase 2						
Fugitive Dust - Grading	-	-	-	-	38.70	8.08
Heavy Equipment Exhaust	86.83	25.63	123.00	43.68	11.25	10.01
Construction Truck Emissions	7.22	1.90	29.09	0.06	0.93	0.92
Worker Travel – Vehicle Emissions	25.72	1.33	2.45	0.02	0.17	0.17
TOTAL	**119.77**	**28.86**	**154.54**	**43.76**	**51.05**	**19.18**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 5b **MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS** **Phase 1 Underground Utilities and Surface Improvements**						
Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Underground Utilities						
Heavy Equipment Exhaust	66.31	21.86	71.53	26.11	6.71	5.97
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Worker Travel – Vehicle Emissions	33.43	1.74	3.19	0.02	0.22	0.22
TOTAL	**114.17**	**27.40**	**132.89**	**26.25**	**8.78**	**8.02**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Surface Improvements						
Heavy Equipment Exhaust	39.67	12.02	53.10	18.96	4.88	4.34
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Worker Travel – Vehicle Emissions	12.86	0.67	1.23	0.01	0.08	0.22
Asphalt Offgassing	-	2.62	-	-	-	-
TOTAL	**66.96**	**19.11**	**112.50**	**19.09**	**6.81**	**6.39**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Landscaping						
Heavy Equipment Exhaust	11.46	3.96	10.58	3.94	1.01	0.90
Worker Travel – Vehicle Emissions	9.64	0.50	0.92	0.01	0.06	0.06
TOTAL	**21.10**	**4.46**	**11.50**	**3.95**	**1.07**	**0.96**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 5c MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS Phase 2 Underground Utilities and Surface Improvements						
Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Underground Utilities						
Heavy Equipment Exhaust	66.31	21.86	71.53	26.11	6.71	5.97
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Worker Travel – Vehicle Emissions	33.43	1.74	3.19	0.02	0.22	0.22
TOTAL	**114.17**	**27.40**	**132.89**	**26.25**	**8.78**	**8.02**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Surface Improvements						
Heavy Equipment Exhaust	39.67	12.02	53.10	18.96	4.88	4.34
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Worker Travel – Vehicle Emissions	12.86	0.67	1.23	0.01	0.08	0.22
Asphalt Offgassing	-	2.62	-	-	-	-
TOTAL	**66.96**	**19.11**	**112.50**	**19.09**	**6.81**	**6.39**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Landscaping						
Heavy Equipment Exhaust	11.46	3.96	10.58	3.94	1.01	0.90
Worker Travel – Vehicle Emissions	9.64	0.50	0.92	0.01	0.06	0.06
TOTAL	**21.10**	**4.46**	**11.50**	**3.95**	**1.07**	**0.96**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 5d **MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS** **House Construction**						
Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Phase 1						
Heavy Equipment Exhaust	13.02	4.43	12.67	4.68	1.20	1.07
Worker Travel – Vehicle Emissions	134.38	6.97	12.80	0.09	0.87	0.86
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Architectural Coatings	-	74.86	-	-	-	-
TOTAL	**161.83**	**90.06**	**83.64**	**4.89**	**3.92**	**3.76**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*Yes*	*No*	*No*	*No*	*No*
Phase 2						
Heavy Equipment Exhaust	13.02	4.43	12.67	4.68	1.20	1.07
Worker Travel – Vehicle Emissions	134.38	6.97	12.80	0.09	0.87	0.86
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Architectural Coatings	-	53.61	-	-	-	-
TOTAL	**161.83**	**68.81**	**83.64**	**4.89**	**3.92**	**3.76**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 5e **MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS** **Roadway Improvements**						
Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
			lbs/day			
			Grading			
Fugitive Dust - Grading	-	-	-	-	35.49	7.41
Construction Truck Travel – Vehicle Emissions	0.65	0.12	1.93	0.00	0.09	0.07
Heavy Equipment Exhaust	20.75	6.32	27.47	9.82	2.53	2.25
Worker Travel – Vehicle Emissions	154.31	8.01	14.70	0.11	1.00	0.99
TOTAL	**175.71**	**14.45**	**44.10**	**9.93**	**39.11**	**10.72**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
			Curbs and Gutters			
Heavy Equipment Exhaust	4.45	1.21	7.36	2.58	0.67	0.60
Worker Travel – Vehicle Emissions	154.31	8.01	14.70	0.11	1.00	0.99
Construction Truck Travel – Vehicle Emissions	7.22	1.90	29.09	0.06	0.93	0.92
TOTAL	**165.98**	**11.12**	**51.15**	**2.75**	**2.60**	**2.51**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
			Base/AC Paving			
Heavy Equipment Exhaust	6.20	1.68	10.24	3.59	0.93	0.92
Worker Travel – Vehicle Emissions	154.31	8.01	14.70	0.11	1.00	0.99
Construction Truck Travel – Vehicle Emissions	7.22	1.90	29.09	0.06	0.93	0.92
Asphalt Offgassing	-	2.62	-	-	-	-
TOTAL	**167.73**	**14.21**	**54.03**	**3.76**	**2.86**	**2.83**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
			Signage/Striping			
Heavy Equipment Exhaust	4.37	1.47	4.44	1.63	0.42	0.42
Worker Travel – Vehicle Emissions	154.31	8.01	14.70	0.11	1.00	0.99
TOTAL	**158.68**	**9.48**	**19.14**	**1.74**	**1.42**	**1.41**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 5f **MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS** **Total**						
Construction Phase	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
			lbs/day			
Underground Utilities	114.17	27.40	132.89	26.25	8.78	8.02
House Construction (Phase 1)	161.83	90.06	83.64	4.89	3.92	3.76
TOTAL	**276.00**	**117.46**	**216.53**	**31.14**	**12.70**	**11.78**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*Yes*	*No*	*No*	*No*	*No*

As shown in Tables 5a through 5e the construction emissions for individual phases would be below the screening-level thresholds for all pollutants except VOCs during architectural coatings application. As shown in Table 5f, the maximum daily construction emissions would be below the screening-level thresholds for all pollutants except VOCs. VOCs would potentially be above the threshold due to the use of architectural coatings.

To evaluate whether project construction could pose a significant impact to nearby sensitive receptors, an evaluation of diesel exhaust particulate matter was conducted. Diesel exhaust particulate matter is known to the state of California as carcinogenic compounds. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the California Office of Environmental Health Hazard Assessment (OEHHA) guidelines, *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2003a) as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Diesel exhaust particulate matter would be emitted during construction due to the operation of heavy equipment at the site. Because diesel exhaust particulate matter is considered to be carcinogenic, long-term exposure to diesel exhaust emissions have the potential to result in adverse health impacts.

To assess whether there is a potential for a significant impact associated with exposure to diesel exhaust particulate matter, a health risk evaluation was conducted on the particulate emissions. The amount of diesel particulate varies with the project schedule and construction phasing. Emissions from heavy equipment for each project phase were estimated as shown in Table 6 below.

Table 6
Diesel Exhaust Particulate Emissions

Construction Phase	Diesel Particulate Emissions, tons	Days
Site Grading Emissions	0.85	483
Underground Utilities and Surface Improvements, Phase 1	0.45	610
Underground Utilities and Surface Improvements, Phase 2	0.45	610
House Construction	0.30	500
Roadway Improvements	0.11	195

The construction heavy equipment sources were represented a point source. The emission sources were represented as three separate point sources 10 feet high, with a stack diameter of 6 inches, and a stack exit temperature of 300 F.

The nearest existing receptors were located based on the site map and aerial photographs for the project area. Two separate receptor grids were used to evaluate impacts on existing residences; a grid was placed in the area to the south of the project (residential development), and a second set of receptors was placed to the east of Summer Glen Road. The receptor grids are shown in Figure 2. The risk evaluation was conducted to assess the potential for an unacceptable risk at these existing receptors due to exposure to diesel particulate emissions from heavy construction equipment during construction.

The U.S. EPA's approved air dispersion model, ISCST3 (U.S. EPA 1999), was used to estimate the downwind impacts at the closest receptors to the construction site. The model was run using preprocessed meteorological data from the MCAS Miramar surface meteorological monitoring station and the MCAS Miramar upper air meteorological monitoring station for 1995. Miramar is considered by the San Diego Air Pollution Control District to be representative of east Conty San Diego. Risk were estimated using the Office of Environmental Health Hazard Assessment (OEHHA)'s unit risk factor of 3×10^{-4} $(\mu g/m^3)^{-1}$ for diesel particulate, which is an upper-bound cancer risk estimate based on 70 years of exposure. Because the unit risk factor is based on 70 years (25550 days) of exposure for 24 hours per day, 365 days per year, the results of the analysis were scaled to account for exposure for the duration of each individual construction phase, as shown in the example calculation below.

Risk = Excess cancer risk for 70 years x (310 days/25550 days).

Based on the above equation, the maximum excess cancer risk predicted would be 0.78 in a million. This value is below the County of San Diego's significance threshold of 1 in 1 million without application of T-BACT and is considered less than significant.

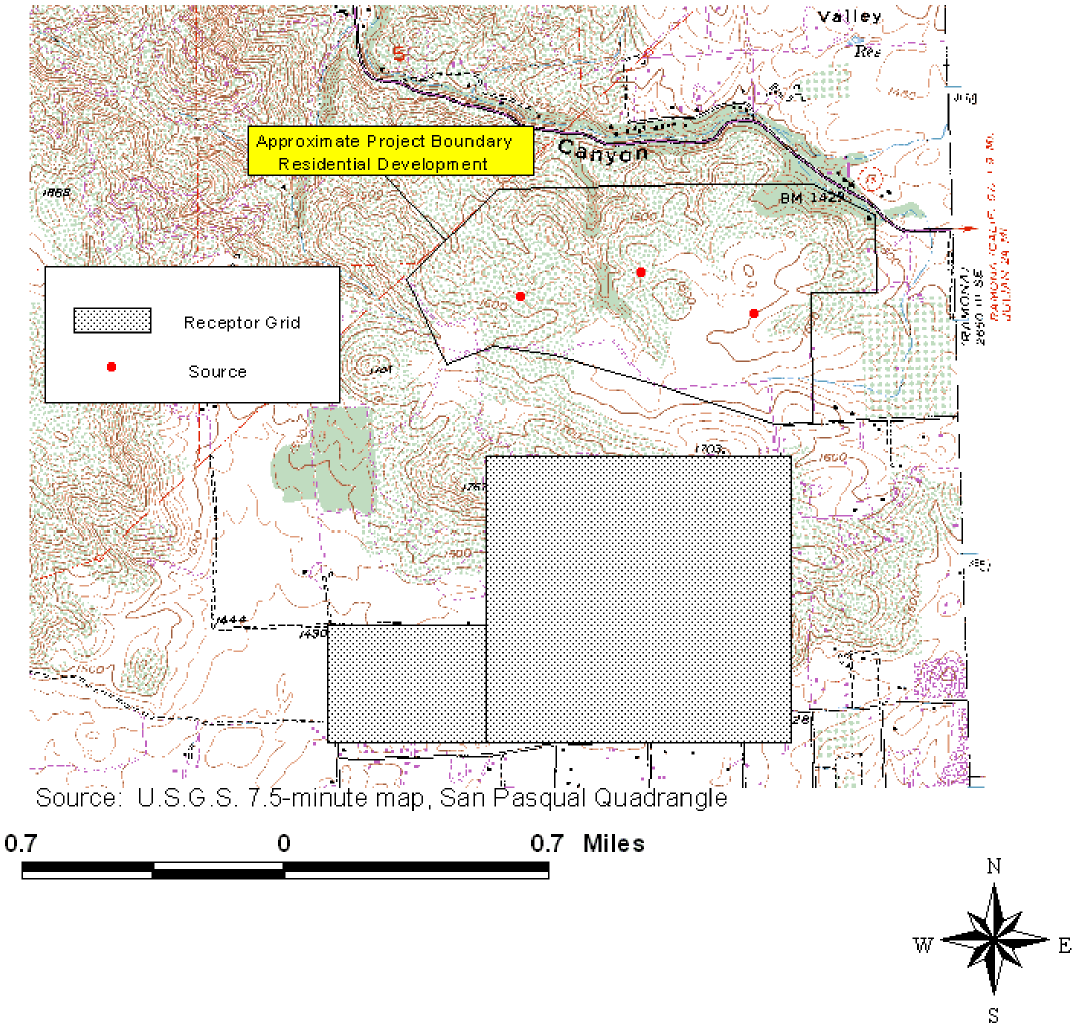


Figure 2. Residential Development Risk Assessment Source Locations and Receptor Grids

It should be noted that other agencies use less conservative measures to evaluate potential significance and potential risks. For example, the EPA bases risk management decisions for risks between 1 in 1 million and 100 in 1 million on feasibility and cost effectiveness criteria. In the EPA's Office of Solid Waste and Emergency Response (OSWER) Directive 9355.0-30 (U.S. EPA 1991), EPA indicates that when cumulative carcinogenic risk based on a reasonable maximum exposure is less than 100 in a million, and non-cancer hazard is less than 1.0, further action (i.e., risk reduction or cleanup) is not generally warranted unless there are adverse environmental impacts. It is also important to note that the risk assessment assumes that an individual would be present for 24 hours per day, 7 days per week during the entire construction period without ever leaving the receptor location. Actual risks to individuals would be likely to be lower.

Project construction could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust; however, because the construction equipment would be operating at various locations throughout the construction site, and because any operation near existing receptors would be temporary, impacts associated with odors during construction are not considered significant.

Under the design option to an on-site WRF, emissions would arise from construction of the WRF on site. Construction emission calculations were based on the construction phases and equipment and crew requirements identified for the project by the project developer and construction contractors. Table 7 presents a summary of the construction phases and crew and equipment needs for construction.

Table 7
WRF Construction Phases and Equipment/Crew Requirements

Construction Phase	Duration, days	Equipment/Crew	Number
Phase 1			
Grading and Site Preparation	25	657E Scraper	8
		D-10R Dozer	1
		D-9L Dozer	1
		834B Rubber Tired Dozer	1
		16G Blade (Motor Grader)	1
		4000 Gallon Water Truck	3
Wastewater Treatment Plant Construction	310	Crew Truck	2
		Forklifts	4
		Generators	2
		Welders	2
		Crane	1

To estimate fugitive dust emissions associated with site grading, it was estimated that the entire WRF site (7.8 acres, which includes the water reclamation plant process area and treated effluent wet weather storage area) could be graded on a single day. Emissions associated with worker travel to the construction site and construction truck deliveries were calculated using the EMFAC2002 emissions estimation model (California Air Resources Board 2002). It was assumed that 70 workers would be required to construct the wastewater treatment plant, and that workers would travel 50 miles round trip to the site. Actual travel distances may be shorter, so this provides a worst-case estimate of worker travel emissions. It was also assumed that trucks delivering construction materials would travel approximately 50 miles round trip to and from the site (a worst-case estimate of distances traveled to bring construction materials from Escondido or San Marcos, the locations of the nearest materials products facilities to the site). Actual travel distances may be shorter depending on the source of construction materials to be used at the site. It was assumed a maximum of 50 trucks per day would transport materials to the site for the wastewater treatment facility.

Table 8 provides a summary of the emission estimates for each individual construction phase of for the WRF. Refer to Appendix A for detailed emission calculations.

Table 5 MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS						
Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Grading and Site Preparation						
Fugitive Dust – Grading	-	-	-	-	38.22	8.03
Heavy Equipment Exhaust	50.75	13.84	133.69	0.29	5.14	4.57
Worker Travel – Vehicle Emissions	34.84	1.61	3.28	0.03	0.28	0.28
Construction Truck Travel – Vehicle Emissions	12.26	3.21	45.33	0.12	1.58	1.56
TOTAL	**97.85**	**18.66**	**182.3**	**0.44**	**45.22**	**14.44**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Wastewater Treatment Plant Construction						
Heavy Equipment Exhaust	9.44	2.78	13.42	0.03	1.23	1.09
Worker Travel – Vehicle Emissions	34.84	1.61	3.28	0.03	0.28	0.28
Construction Truck Travel – Vehicle Emissions	12.26	3.21	45.33	0.12	1.58	1.56
TOTAL	**56.54**	**7.60**	**62.03**	**0.18**	**3.09**	**2.93**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

During the maximum daily construction scenario for the WRF, emissions of all criteria pollutants would be below the screening-level thresholds.

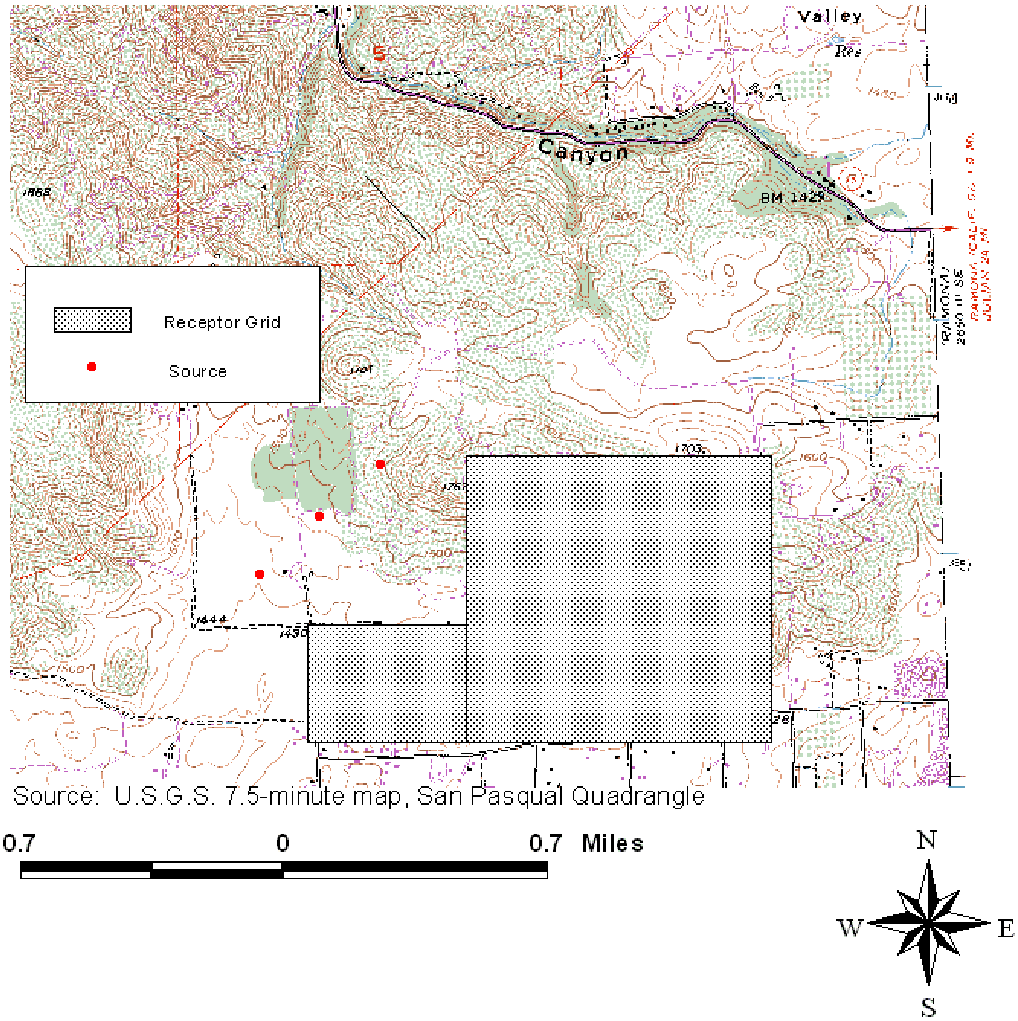
To assess whether there is a potential for a significant impact associated with exposure to diesel exhaust particulate matter during construction of the WRF, a health risk evaluation was conducted on the particulate emissions. The amount of diesel particulate varies with the project schedule and construction phasing. Emissions from heavy equipment for each project phase were estimated as shown in Table 8 below.

Table 6
Diesel Exhaust Particulate Emissions

Construction Phase	Diesel Particulate Emissions, total tons	Days
Rough Grading	0.06	25
Wastewater Treatment Plant Construction	0.19	310

The construction heavy equipment sources were represented as three point sources. The emission sources were represented as three separate point sources 10 feet high, with a stack diameter of 6 inches, and a stack exit temperature of 300 F. The locations of the sources and receptor grids are shown in Figure 3.

As for the residential development, the U.S. EPA's approved air dispersion model, ISCST3 (U.S. EPA 1999), was used to estimate the downwind impacts at the closest receptors to the construction site. The maximum excess cancer risk for exposure to diesel particulate during construction of the WRF was predicted to be 0.0796 in a million. When added to the excess cancer risk of 0.78 in a million predicted for construction of the residential development, the total excess cancer risk would be 0.86 in a million. This value is below the County of San Diego's significance threshold of 1 in 1 million without application of T-BACT.



Source: U.S.G.S. 7.5-minute map, San Pasqual Quadrangle

Figure 3. WRF Construction
Source Locations and Receptor Grids

4.2.2 Operational Impacts

Operational emissions associated with operations for the Montecito Ranch development include area sources such as energy use, landscaping, and fireplace use, and vehicle emissions due to project-generated traffic. The residences will be equipped with natural gas fireplaces.

According to the Traffic Impact Analysis for Montecito Ranch (Urban Systems 2006), the proposed project, with 417 single-family residences, is predicted to generate 5,004 daily vehicle trips with a trip generation factor of 12 trips per residence. Park and trail uses will add an additional 101 average daily trips, and the charter school is anticipated to add an additional 780 trips. Residential development traffic is primarily composed of autos and light-duty trucks (pick-ups, SUVs, vans).

To calculate emissions from the Project, it was assumed that Unit 1, which is comprised of 243 residential units, would be complete and occupied by the year 2010. Regional exhaust emissions from daily vehicle travel were calculated using the CARB URBEMIS computer model using its default settings for trip lengths, vehicle mixes, cold starts, etc. It should be noted that the latest version of URBEMIS, Version 9.2.2, does not contain emission factors for San Diego County. The model results for Unit 1 are shown in Table 8.

As shown in Table 8, emissions associated with operations for Unit 1 would be below the screening-level thresholds, and thus impacts would be less than significant.

Table 8
Project-Related Operational Emissions
2010 Operations – Unit 1

	ROG	**NOx**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
	Lbs/day, summer					
Residential Energy Use	0.24	3.04	1.30	0.00	0.01	0.01
Landscaping	1.96	0.12	10.85	0.03	0.03	0.03
Consumer Products Use	11.89	-	-	-	-	-
Architectural Coatings Use	1.57	-	-	-	-	-
Vehicular Emissions	20.13	26.58	244.39	0.20	16.77	3.75
TOTAL	**35.79**	**29.74**	**256.54**	**0.23**	**16.81**	**3.79**
Screening-Level Thresholds	75	250	550	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
	Lbs/day, winter					
Residential Energy Use	0.24	3.04	1.30	0.00	0.01	0.01
Fireplace Use	0.12	2.02	0.86	0.01	0.16	0.16
Consumer Products Use	11.89	-	-	-	-	-
Architectural Coatings Use	1.57	-	-	-	-	-
Vehicular Emissions	21.99	38.86	264.45	0.17	16.77	3.75
TOTAL	**35.81**	**43.92**	**266.61**	**0.18**	**16.94**	**3.92**
Screening-Level Thresholds	75	250	550	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
	Tons/year					
Residential Energy Use	0.04	0.56	0.24	0.00	0.00	0.00
Fireplace Use	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.18	0.01	0.98	0.00	0.00	0.00
Consumer Products Use	2.17	-	-	-	-	-
Architectural Coatings Use	0.29	-	-	-	-	-
Vehicular Emissions	3.79	5.60	45.82	0.03	3.06	0.68
TOTAL	**6.47**	**6.17**	**47.04**	**0.03**	**3.06**	**0.68**
Screening-Level Thresholds	13.7	40	100	40	15	10
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Source: URBEMIS Model Runs

Unit 2, which is comprised of 174 residential units along with the parks and the charter school, would be complete and occupied by the year 2015. Emissions for Unit 2 were calculated using the URBEMIS Model with default assumptions as discussed above. The model results for Units 1 and 2 are shown in Table 9.

Table 9
Project-Related Operational Emissions (pounds/day)
2015 Operations – Units 1 and 2

	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
	Lbs/day, summer					
Residential Energy Use	0.44	5.76	2.67	0	0.01	0.01
Landscaping	3.61	0.25	21.71	0.00	0.06	0.06
Consumer Products Use	20.40	-	-	-	-	-
Architectural Coatings Use	2.84	-	-	-	-	-
Vehicular Emissions	37.23	41.66	396.60	0.50	41.41	9.07
TOTAL	**64.52**	**47.67**	**420.98**	**0.50**	**41.48**	**9.14**
Screening-Level Thresholds	75	250	550	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
	Lbs/day, winter					
Residential Energy Use	0.44	5.76	2.67	0	0.01	0.01
Fireplace Use	0.20	3.46	1.47	0.02	0.28	0.28
Consumer Products Use	20.40	-	-	-	-	-
Architectural Coatings Use	2.84	-	-	-	-	-
Vehicular Emissions	35.17	60.85	418.56	0.43	41.41	9.07
TOTAL	**59.05**	**70.07**	**422.70**	**0.45**	**41.70**	**9.36**
Screening-Level Thresholds	75	250	550	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
	Tons/year					
Residential Energy Use	0.08	1.05	0.49	0.00	0.00	0.00
Fireplace Use	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.32	0.02	1.95	0.00	0.01	0.01
Consumer Products Use	3.72	-	-	-	-	-
Architectural Coatings Use	0.52	-	-	-	-	-
Vehicular Emissions	6.67	8.77	73.72	0.08	7.56	1.66
TOTAL	**11.31**	**9.84**	**76.16**	**0.08**	**7.57**	**1.67**
Screening-Level Thresholds	13.7	40	100	40	15	10
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Source: URBEMIS Model Runs

As shown in Table 9, emissions for Units 1 and 2 would be less than the screening-level thresholds, and impacts would therefore be less than significant.

Under the design option to an on-site WRF, emissions would arise from WRF operations. Emissions associated with operation of the WRF include emissions of criteria pollutants from operating the emergency generator for testing purposes and emissions from worker vehicles.

It was assumed that the emergency generator would be required to supply power to the WRF and pump stations during periods when electricity is not available. The generator would be tested for

30 minutes per week to ensure that it is operating properly. For the purpose of estimating emissions from the generator, it was assumed that the generator would be 300 kW in size. Emissions associated with worker travel to the site were estimated assuming that 10 workers would be required to operate the WRF. Criteria pollutant emissions are shown in Table 10. These emissions would be added to the emissions associated with 2015 project operations, as shown in Table 10.

Table 10
Operational Criteria Pollutant Emissions

Emission Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions, lbs/day						
WRF/Pump Station Emergency Generators	1.01	12.47	2.69	0.82	0.89	0.88
WRF Worker Travel – Vehicle Emissions	0.12	0.18	2.03	0.00	0.02	0.02
TOTAL WRF Emissions	**1.13**	**12.65**	**4.72**	**0.82**	**0.91**	**0.90**
Operational Emissions	64.52	70.07	422.70	0.50	41.70	9.36
TOTAL	**65.65**	**82.72**	**427.42**	**1.32**	**42.61**	**10.26**
Screening-Level Thresholds	75	250	550	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Annual Emissions, tons/year						
WRF/Pump Station Emergency Generators	0.00606	0.07483	0.01612	0.00495	0.00531	0.00527
WRF Worker Travel – Vehicle Emissions	0.02	0.03	0.37	0.00	0.00	0.00
TOTAL WRF Emissions	**0.026**	**0.078**	**0.39**	**0.00495**	**0.00531**	**0.00527**
Operational Emissions	11.31	9.84	76.16	0.08	7.57	1.67
TOTAL	**11.34**	**9.92**	**76.55**	**0.085**	**7.58**	**1.68**
Screening-Level Thresholds	13.7	40	100	40	15	10
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO "hot spots." To verify that the project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO "hot spots" was conducted. The Traffic Impact Analysis for Montecito Ranch (Urban Systems Associates, Inc. 2008) evaluated whether or not there would be a decrease in the level of service at the roadways and/or intersections affected by the Project. The potential for CO "hot spots" was evaluated based on the results of the Traffic Impact Analysis. The Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998) should be followed to determine whether a CO “hot spot” is likely to form due to Project-generated traffic. In accordance with the Protocol, CO “hot spots” are typically evaluated when (a) the level of service (LOS) of an intersection or roadway decreases to a LOS E or worse; (b) signalization and/or channelization is added to an intersection; and (c) sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment.

The Traffic Impact Analysis evaluated eight intersections in the project vicinity to assess the Existing, Existing plus Project, Existing plus Other Projects plus Project, and Year 2030 conditions and LOS. Based on the Traffic Impact Analysis, the following intersections were projected to experience a degradation in LOS from an acceptable level (A through D) to E or F due to project-related traffic alone (direct impact), or a significant delay (greater than 2 seconds).

Existing plus Project

- Ash Street at Pine Street – am and pm peak hours
- Pine Street (SR-78) at Olive Street – pm peak hour
- Pine Street and Main Street (SR-67) – pm peak hour
- Main Street (SR-67) at Montecito Road – pm peak hour
- Main Street (SR-67) at Highland Valley Road/Dye – am peak hour
- Main Street (SR-67) at Archie Moore Road – am and pm peak hours

Existing plus Other Projects plus Project

- Ash Street at Pine Street – am and pm peak hours
- Pine Street (SR-78) at Olive Street – am and pm peak hours
- Pine Street (SR-78) at Main Street (SR-67) – am and pm peak hours
- Main Street (SR-67) at Montecito Road – am and pm peak hours
- Main Street (SR-67) at Highland Valley Road/Dye – am and pm peak hours
- Main Street (SR-67) at Archie Moore Road – am and pm peak hours

Year 2030 with Project

- Ash Street at Pine Street – am and pm peak hours
- Pine Street (SR-78) at Olive Street – am and pm peak hours
- Pine Street (SR-78) at Main Street – am and pm peak hours

- Main Street (SR-67) at Montecito Road – am and pm peak hours
- Main Street (SR-67) at Highland Valley Road/Dye – am peak hour
- Main Street (SR-67) at Archie Moore Road – am and pm peak hours

To evaluate the potential for CO "hot spots," the procedures in the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998) were used. As recommended in the Protocol, CALINE4 modeling was conducted for the intersections identified above for the scenario without Project traffic, and the Project scenarios. Modeling was conducted based on the guidance in Appendix B of the Protocol to calculate maximum predicted 1-hour CO concentrations. Predicted 1-hour CO concentrations were then scaled to evaluate maximum predicted 8-hour CO concentrations using the recommended scaling factor of 0.7 for urban locations.

Inputs to the CALINE4 model were obtained from the Traffic Impact Analysis for Montecito Ranch (Urban Systems Associates, Inc. 2006). As recommended in the Protocol, receptors were located at locations that were approximately 3 meters from the mixing zone, and at a height of 1.8 meters. Average approach and departure speeds were estimated assuming a minimum speed, which results in a high estimate of emissions of CO as CO decreases with speed. Emission factors were estimated from the EMFAC2007 emissions model (ARB 2007) for 2010, which was assumed to be the year in which the project would begin residential occupancy for the Existing plus Other Projects plus Project scenario; emission factors for 2030 were used for the Year 2030 plus Project scenario. These scenarios were evaluated as they were considered to represent a worst case and would result in maximum CO concentrations.

In accordance with the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol, it is also necessary to estimate future background CO concentrations in the project vicinity to determine the potential impact plus background and evaluate the potential for CO "hot spots" due to the project. Because the highest 1-hour background concentration of CO in the past three years occurred during the Cedar Fire event in October of 2003, that concentration was not considered representative of background levels for the project site. As a conservative estimate of background CO concentrations, the existing maximum 1-hour background concentration of CO that was measured at the Escondido monitoring station for the period 2004 – 2005 of 6.3 ppm was used to represent future maximum background 1-hour CO concentrations. This is a conservative assumption, as the monitoring station is located in a congested area in Escondido. The existing maximum 8-hour background concentration of CO that was measured at the Escondido monitoring station during the period from 2004 to 2005 of 3.61 ppm was also used to provide a conservative estimate of the maximum 8-hour background concentrations in the project vicinity. CO concentrations in the future may be lower as inspection and maintenance programs and more stringent emission controls are placed on vehicles.

The CALINE4 model outputs are provided in Appendix A of this report. Tables 11 and 12 present a summary of the predicted CO concentrations (impact plus background) for the intersections evaluated. As shown in Tables 11 and 12, the predicted CO concentrations would be substantially below the 1-hour and 8-hour NAAQS and CAAQS for CO shown in Table 1 of this report. Therefore, no exceedances of the CO standard are predicted, and the project would not cause or contribute to a violation of this air quality standard.

Vehicular traffic may result in minor amounts of toxic air contaminants (TACs). Based on the County of San Diego's requirements, a quantitative evaluation of the potential for risks associated with exposure to diesel particulate emissions generated by vehicles from the proposed residences must be conducted. Based on EMFAC2007 outputs for 2010 (provided in Appendix A) and considering only light duty autos and light duty trucks, the total percentage of trips for diesel light duty autos is approximately 0.1 percent, and the total percentage of trips for diesel light duty trucks is approximately 0.2 percent. Therefore, there are approximately 4 trips per day out of 4,590 total light duty auto trips that would be attributable to diesel light duty autos, and approximately 3 trips per day out of 1,294 total light duty truck trips that would be attributable to diesel light duty trucks. The risk assessment evaluated impacts from traffic traveling one mile out from the development, along two alternative routes. Based on the Traffic Impact Analysis, approximately 2,295 trips would travel on Ash Street eastward from the Montecito Ranch development, and approximately 2,530 trips would travel southward on Montecito Way from the development. Based on these traffic estimates, approximately 2 light-duty diesel auto trips and 1 diesel light duty truck trip per day would travel on Ash Street, and approximately 2 light duty diesel auto trips and 2 light duty diesel truck trips per day would travel on Montecito Way.

Table 11
CO "Hot Spots" Evaluation
Existing plus Other Projects plus Project
Predicted CO Concentrations, ppm

Intersection	**Existing plus Other Projects plus Project**	
Maximum 1-hour Concentration Plus Background, ppm CAAQS = 20 ppm; NAAQS = 35 ppm		
	am	*pm*
Ash Street at Pine Street	7.0	7.1
Pine Street at Olive Street	7.0	7.1
Pine Street at Main Street	7.4	7.8
Main Street at Montecito Road	7.3	7.5
SR-67 at Highland Valley Road/Dye	7.3	7.3
SR-67 at Archie Moore Road	7.4	7.5
Maximum 8-hour Concentration Plus Background, ppm CAAQS = 9.0 ppm; NAAQS = 9 ppm		
Ash Street at Pine Street	4.17	
Pine Street at Olive Street	4.17	
Pine Street at Main Street	4.66	
Main Street at Montecito Road	4.45	
SR-67 at Highland Valley Road/Dye	4.31	
SR-67 at Archie Moore Road	4.45	

Table 12
CO "Hot Spots" Evaluation
Year 2030 Plus Project
Predicted CO Concentrations, ppm

Intersection	**Existing plus Other Projects plus Project**	
Maximum 1-hour Concentration Plus Background, ppm CAAQS = 20 ppm; NAAQS = 35 ppm		
	am	*pm*
Ash Street at Pine Street	6.5	6.6
Pine Street at Olive Street	6.5	6.5
Pine Street at Main Street	6.6	6.7
Main Street at Montecito Road	-	6.6
SR-67 at Highland Valley Road/Dye	6.6	-
SR-67 at Archie Moore Road	6.7	6.7
Maximum 8-hour Concentration Plus Background, ppm CAAQS = 9.0 ppm; NAAQS = 9 ppm		
Ash Street at Pine Street	3.82	
Pine Street at Olive Street	3.75	
Pine Street at Main Street	3.89	
Main Street at Montecito Road	3.75	
SR-67 at Highland Valley Road/Dye	3.75	
SR-67 at Archie Moore Road	3.89	

Potential impacts to sensitive receptors were evaluated based on the South Coast Air Quality Management District's "Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions" (SCAQMD 2002). According to the Guidance, the ISCST3 model should be used to estimate impacts associated with diesel particulate exhaust emissions. The Guidance recommends the use of multiple adjacent volume sources to represent emission sources along the roadway; therefore, to model the potential impacts associated with emissions of diesel particulate from light duty autos and light duty trucks (vehicles from the proposed residences), a series of volume sources was placed along both roadways (Ash Street and Montecito Way). Each of the volume sources was assumed to be 50 meters (164 feet) x 50 meters (164 feet), and was assumed to be at ground level. Emissions were divided among the volume sources equally and were calculated to be 2.78×10^{-5} lbs/day per source along Ash Street, and 3.35×10^{-5} lbs/day per source along Montecito Way. Annual average concentrations were calculated at each sensitive receptor identified in the project vicinity.

HARP (OEHHA 2003b) was used to estimate the high-end excess cancer risks associated with exposure to diesel particulate from vehicles. The high-end excess cancer risk was calculated based on guidance from the Office of Environmental Health Hazard Assessment (OEHHA 2003a), using the 80^{th} percentile exposure assumptions for inhalation risks (ARB 2003). The risks were calculated based on 70 years of exposure in a residential scenario. The maximum excess cancer risk associated with exposure to diesel particulate from project-generated trips was estimated to be 0.0107 in a million, which is below the San Diego County's significance threshold of 1 in a million without T-BACT. Impacts that are farther from the roadway would be lower as concentrations decrease with increasing distance from the roads.

4.3 Odors

As shown in Section 2.2, Figure 2, the prevailing winds in the project area are from the west. The residential development itself would not be a source of odor impacts. The only potential odor source for the proposed Project would be odors from the sewer pump stations located in Unit 1 and Unit 2. Odors generated from wastewater are usually the result of gases produced by naturally decaying organic matter in wastewater. Occasionally when wastewater is subject to an anaerobic decomposition (lack of oxygen), the water turns septic and can cause the release of hydrogen sulfide and other odor-causing, reduced sulfur containing compounds. This can occur when low wastewater flows are present in the sewer system.

The system is designed to pump out wastewater several times per hour. The system will be equipped with two redundant pumps that would allow for backup operation of the pumps in the event that one pump is out of service. An emergency generator would be available to supply power to maintain wastewater flow in the event of a power outage. The wastewater system will also include chemical feed addition at the pump stations to minimize odors. A back-up chemical injection system will be included for further odor control redundancy. Therefore, no significant impact would result from sewer pump station odors.

Under the WRF option, odors may be produced during the handling and treatment of wastewater. Potential odor impacts from the WRF were therefore addressed.

Wastewater treatment plants can produce odors considered to be unpleasant. These gases, principally hydrogen sulfide (H_2S), are generated as a result of the anaerobic decomposition (decay in the absence of oxygen) of organic matter. Other odor compounds may include organic and inorganic compounds of sulfur including mercaptans, ammonia, amines, and organic fatty acids. According to the USEPA (USEPA 2000), odors are released from both wastewater handling and biosolids production. Odor compounds may be released from raw wastewater during influent pumping, aeration, and handling of biosolids (sludge). Odor compounds are formed during biosolids treatment through heat, aeration, and digestion. Alkaline stabilization of the solids volatilizes ammonia and other volatile compounds. Composting odors can be caused by ammonia, amines, sulfur-based compounds, fatty acids, and aromatic hydrocarbons. Aerobically digested biosolids can produce mercaptans and dimethyl sulfide.

Hydrogen sulfide is noted for its strong and offensive odor. Based on a review of 26 studies, the average odor detection threshold ranged from 0.00007 to 1.4 ppm (Amoore 1985). The geometric mean of these studies is 0.008 ppm. According to OEHHA (OEHHA 1999), the 1-hour CAAQS for H_2S was originally based on an olfactory perception study by the California State Department of Public Health. Sixteen individuals were each exposed to increasing concentrations of H_2S until his or her odor threshold was reached. The range of the odor thresholds was 0.012-0.069 ppm, and the geometric mean was 0.029 ppm (geometric standard deviation = 0.005 ppm). The mean odor threshold (rounded to 0.03 ppm, or 42 $\mu g/m^3$) was selected as the CAAQS for H_2S. However, others have reported that the odor threshold is as low as 0.0081 ppm (Amoore and Hautala 1983). In 1984, CARB reviewed the CAAQS for H_2S and found that the standard was necessary not only to reduce odors, but also to reduce the physiological symptoms of headache and nausea. The CAAQS were adopted based on these studies and are considered to be health protective and below the levels at which adults and/or children would be anticipated to experience acute health effects such as conjunctivitis, respiratory irritation, and unconsciousness, which, according to the American Industrial Hygiene

Association, is 100 ppm (their Emergency Response Planning Guideline for 1-hour exposures, at which there is a potential for adverse health effect).

According to the *Sewer Service Design Report for the Montecito Ranch Water Reclamation Facility in the County of San Diego* (Dexter Wilson Engineering, Inc. 2006), the Montecito Ranch project would generate approximately 109,510 gallons per day of wastewater. The WRF was design to handle the average flow as well as a peak flow of approximately 406,000 gallons per day of wastewater. The WRF would be located in the southwestern portion of the development on Montecito Way, across from the historical park site and south of the Charter School site. The WRF would include an influent pump station, influent screening, aeration-activated sludge process, tertiary filters, a chlorine contact tank, non-compliant effluent storage tank, and an aerobic digestion and dewatering system. The facility will also include a diesel emergency power generator and diesel storage tank, spill containment system, and treated effluent disposal fields (a total of 16.9 acres of land). Solids would be screened from the sludge and hauled from the site once or twice per week. The facility would be designed to minimize odors, including the addition of water, chemicals or activated carbon, as required. The facility would include an activated sludge process for secondary treatment of effluent. Once the effluent undergoes secondary treatment, odors would be minimized.

Assessing odor impacts depends upon such variables as wind speed, wind direction, and the sensitivities of receptors to different odors. For sensitive receptors, mitigation measures are limited. In fact, in some instances the only mitigation available to sensitive receptors is to relocate upwind or further downwind from the source. The facility that is producing the odor can also relocate equipment so that fumes can be emitted at locations to take the best advantage of wind patterns, i.e., venting sources at height to increase dispersion when transported downwind.

Emission factors for odor compounds from wastewater treatment plants are not generally available. For the purpose of evaluating the potential for odor impacts to sensitive receptors, data from the Bay Area Air Quality Management District's (BAAQMD's) Toxic Air Contaminant 2000 Annual Report was reviewed to determine estimated emissions of odor compounds including ammonia and H_2S. The BAAQMD's Toxic Air Contaminant 2000 Annual Report presents reported toxic air contaminant emissions from the San Jose/Santa Clara Water Pollution Control facility in San Jose, California (BAAQMD 2001). The facility is similar to that proposed for the Montecito Ranch development in that it treats and cleans wastewater using secondary and tertiary treatment processes. The facility uses biological filters for odor control, and processes sludge. The facility is much larger than the proposed wastewater treatment facility, in that it treats a maximum capacity of 167 million gallons per day of wastewater, as opposed to 110,000 gallons per day.

Some of the emissions reported by the San Jose/Santa Clara Water Pollution Control facility are attributable to sources that are not similar to those proposed at the WRF at the Montecito Ranch project. These sources primarily include internal combustion and dual fueled boilers. The facility also includes two dual fueled boilers operated on natural gas/digester gas. The use of selective catalytic reduction for NO_x control for the combustion sources may account for the high amount of ammonia emissions reported by the facility. Therefore, the ammonia emissions reported by the San Jose/Santa Clara Water Pollution Control facility were not used to estimate emissions from the proposed wastewater treatment facility.

To estimate emissions for the proposed WRF, it was assumed that odor compound emissions not eliminated based on dissimilar sources would be emitted in proportion to the capacity at the San Jose/Santa Clara Water Pollution Control facility. Reported H_2S emissions from the San Jose facility in 2001 were 8,000 pounds/year (BAAQMD 2001). The H_2S emissions from the proposed WRF were estimated to be approximately 5.27 pounds/year (based on the ratio of 110,000 gallons/day treated at the Montecito Ranch facility versus 167,000,000 gallons/day treated at the San Jose/Santa Clara Water Pollution Control Facility, times emissions from the San Jose/Santa Clara Water Pollution Facility of 8,000 pounds/year of H_2S).

To determine whether odors would be detected by people living, working, or using recreational facilities in the vicinity of the proposed WRF, transport of odor compounds downwind of the facility was addressed using air dispersion modeling. Dilution of odors can be assessed using standard air dispersion modeling techniques. Air dispersion modeling takes into account the anticipated dilution of odors and the meteorological conditions to evaluate potential impacts on sensitive receptors, such as residences and recreational areas. Air dispersion modeling can be used to predict downwind concentrations of a given substance based on emission estimates. For the purpose of conducting the analysis of potential odor impacts from the wastewater treatment facility, odor sources at the proposed wastewater treatment facility were modeled using the USEPA's SCREEN model, which is a screening model designed to estimate worst-case impacts associated with emissions from a given facility. For the purpose of evaluating potential impacts, estimated emissions of H_2S from the facility were estimated assuming the emissions would be proportional to those emissions from the San Jose/Santa Clara Water Pollution Control Facility based on the amount of wastewater treated. H_2S was considered the most detectable odor compound that could be emitted from the facility. The downwind concentrations predicted by the SCREEN model were then compared with the odor threshold for H_2S.

It was assumed that the nearest receptor was approximately 300 feet from the WRF based on the location of existing residences to the south and southeast of the Montecito Ranch subdivision, and the location of the Charter School relative to the project site. The treatment plant was modeled as an area source approximately 10,000 square feet in area based on the size of the plant (30.5 meters x 30.5 meters). The modeled concentration at 300 feet from the facility was 0.5296 $\mu g/m^3$, which is equivalent to 0.000746 ppm. The odor threshold for H_2S is 0.0081 ppm; thus the concentration at the nearest sensitive receptor would be approximately 11 times lower than the odor threshold.

The wastewater treatment facility is proposing a spray field to the south and east of the wastewater treatment facility. The Montecito Ranch development is proposing to use reclaimed water for Project site irrigation, but leftover reclaimed water would be irrigated over the spray field. Reclaimed water is water that has been through some treatment processes to remove odor sources, but is not classified as potable water. Reclaimed water is used throughout San Diego for irrigation to conserve water, and is not associated with odor impacts.

There may be a small potential for odors from the equestrian facilities and horse lots (residential lots 1 through 30 in the eastern portion of the project) to affect receptors. The equestrian center is located on the southern end of the Montecito Ranch development, adjacent to the Historic Park Site. Equestrian activities would include trail riding and equestrian events. No horse boarding would be allowed. Odors would be generated from equestrian wastes. The nearest off-site receptors would be located approximately 600 feet to the east of the equestrian facilities in a rural area and would be unlikely to experience a significant adverse effect from the facilities. Furthermore, there is an existing equestrian facility to the south of the Montecito Ranch development, and existing agricultural operations in the area surrounding the southern end of the Montecito Ranch development. The proposed equestrian facility would not result in appreciably different impacts from existing conditions.

The equestrian facility would be approximately 300 feet from the on-site school. While some odors may be generated from equestrian wastes, because there is no horse boarding, and because larger events would be more likely to occur on weekends when school is not in session, odor impacts to the school would not be significant.

The horse lots located on the eastern end of the Montecito Ranch development would only allow for up to four horses per lot and would not involve major equestrian operations. Two off-site houses are located adjacent to the horse lots. Because of the limitation of horses per lot, it is unlikely that the horse lots would result in significant offsite odors to adjacent residents. Thus the project's equestrian uses would not represent an adverse odor impact in comparison with existing conditions at the site.

Odor impacts would therefore not be expected to be significant.

Toxic Air Contaminants. In addition to odor compounds, wastewater treatment plants may emit chlorinated hydrocarbons, including chloroform, methylene chloride, perchloroethylene, and trichloroethylene. These substances may be emitted due to trace amounts of chlorine treatment byproducts in wastewater. H_2S is also considered a toxic air contaminant, as exposure to high concentrations has the potential to cause adverse health effects.

Emissions of chlorinated hydrocarbons were estimated using the same assumptions that were used to estimate emissions of H_2S, by assuming that the processes involved in wastewater treatment and biosolids processing at the proposed TTP would be similar to the San Jose/Santa Clara Water Pollution Control facility (BAAQMD 2001).

Table 13 presents estimated emissions of chlorinated hydrocarbons and H_2S from the proposed Montecito Ranch WRF.

Table 13
Chlorinated Hydrocarbon Emission Estimates

Substance	Reported Emissions from San Jose Facility, pounds/year	Estimated Emissions from Proposed Wastewater Treatment Facility, pounds/year
Chloroform	24,000	15.8
H_2S	8,000	5.27
Methylene Chloride	13,000	8.56
Perchloroethylene	3,100	2.04
Trichloroethylene	380	0.25

Source: BAAQMD 2001.

Air dispersion modeling using the SCREEN3 model was also conducted to estimate downwind concentrations of toxic air contaminants, including the chlorinated hydrocarbons listed in Table 5 and H_2S. The modeling was conducted in the same manner as that conducted for odor impacts. Table 6 presents the results of the modeling along with a comparison to the acute reference exposure levels in accordance with the California Office of Environmental Health Hazard Assessment (OEHHA) for toxic air contaminants (OEHHA 2003). The acute reference exposure level is the concentration at which an adverse health effect could result due to 1 hour of exposure. According to OEHHA (OEHHA 1999), H_2S is a respiratory irritant that, in high enough concentrations, can be an extremely hazardous gas.

Also according to OEHHA (OEHHA 1999), acute reference exposure levels for all substances, including chlorinated hydrocarbons, are developed based on health-protective standards. According to OEHHA, the National Academy of Sciences has endorsed the development of biologically based quantitative methods for assessing the effects of exposure to a chemical. This includes incorporating information on mechanisms of action and variability among populations and between individuals that might affect susceptibility to toxic insults, such as age, lifestyle, genetic background, sex, and ethnicity. Thus all acute reference exposure levels adopted by OEHHA are considered to be conservative and to protect sensitive populations such as children and the elderly.

As shown in Table 14, maximum 1-hour impacts associated with emissions of chlorinated hydrocarbons and H_2S would be well below the acute reference exposure levels at the Charter School and nearest residence.

Table 14
Predicted Maximum 1-Hour Air Emission Impacts

Substance	Maximum 1-Hour Concentration, µg/m^3	Acute Reference Exposure Level, µg/m^3
Chloroform	1.59	150
H_2S	0.53	42
Methylene Chloride	0.86	14,000
Perchloroethylene	0.21	20,000
Trichloroethylene	0.025	N/A

Annual average impacts were also predicted to determine whether any potential long-term impacts could be anticipated from the H_2S emissions and trace chlorinated hydrocarbon emissions from the facility. To convert maximum one-hour concentration to annual average concentration, the EPA's scaling factor of 0.08 was used. This represents a conservative estimate of average annual ground-level concentration. For each substance, cancer risk is the annual average impact multiplied by the cancer unit risk factor. The non-cancer chronic hazard index is the annual average impact divided by the non-cancer chronic reference exposure level. Significant risks are predicted if the cancer risk is greater than 10 in 1 million with application of Toxics-BACT, or the non-cancer hazard index is greater than 1. The cancer unit risk factors and non-cancer chronic reference exposure levels were obtained from the most recently approved values released by OEHHA. For the purpose of evaluating chronic risks, it was assumed that residents and school children could be present 24 hours per day, 365 days per year, for 70 years.

Table 15 presents the results of the annual average impact assessment. As shown in the table, no adverse impacts are predicted.

Table 15
Predicted Annual Average Air Emission Impacts

Substance	Annual Average Concentration ($\mu g/m^3$)	Chronic Reference Exposure Level ($\mu g/m^3$)	Hazard Quotient	Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Excess Cancer Risk
Chloroform	0.13	300	0.000433	5.3×10^{-6}	6.9×10^{-7}
H_2S	0.042	10	0.0042	N/A	N/A
Methylene Chloride	0.069	400	0.00017	1×10^{-6}	6.9×10^{-8}
Perchloroethylene	0.016	35	0.00045	5.9×10^{-6}	9.4×10^{-8}
Trichloroethylene	0.002	600	0.000003	2×10^{-6}	4.0×10^{-9}
TOTAL			**0.0053**		8.6×10^{-7}
Significant?			*No*		*No*

Based on the estimated emissions, the WRF's potential health risks would be less than significant.

4.4 Global Climate Change

4.4.1 Discussion of Existing Conditions Relating to Climate Change

Recognizing public interest and concern regarding climate change and recent California legislation on this topic, this section provides information and analysis on climate change related to the proposed project. As the County of San Diego is requiring global climate change to be addressed in EIRs, the analysis of global climate change has been included in this technical report. The information and analysis provided is based on relevant available data regarding climate change and a project-specific emissions inventory for greenhouse gases (GHGs).

4.4.1.1 Regulatory Framework

International and Federal Legislation. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess "the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation" (AEP 2007).

The United States joined other countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC was entered on March 21, 1994. Under the Convention, governments: gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change (AEP 2007).

The Kyoto Protocol is a treaty made under the UNFCCC. Countries can sign the treaty to demonstrate their commitment to reduce their emissions of greenhouse gases or engage in emissions trading. More than 160 countries, 55% of global emissions, are under the protocol. United States Vice President, Al Gore, symbolically signed the Protocol in 1998. However, in order for the Protocol to be formally adopted, or ratified, it must be adopted by the U.S. Senate, which was not done by the Clinton administration. The current President, George W. Bush, has indicated that he does not intend to submit the treaty for ratification.

The Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere--chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform--were to be phased out by 2000 (2005 for methyl chloroform).

In October 1993, President Clinton announced his Climate Change Action Plan, which had a goal to return greenhouse gas emissions to 1990 levels by the year 2000. This was to be accomplished through 50 initiatives that relied on innovative voluntary partnerships between the private sector and government aimed at producing cost-effective reductions in greenhouse gas emissions.

California Legislation. Although not originally intended to reduce greenhouse gas emissions, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest amendments were made in October 2005. Energy efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

California Assembly Bill 1493 (Pavley) enacted on July 22, 2002, required the California Air Resources Board (CARB) to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB will apply to 2009 and later model year vehicles. CARB estimates that the regulation will reduce climate change emissions from light duty passenger vehicle fleet by an estimated 18% in 2020 and by 27% in 2030 (AEP 2007).

California Governor Arnold Schwarzenegger announced on June 1, 2005 through Executive Order S-3-05, greenhouse gas (GHG) emission reduction targets as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. Some literature equates these reductions to 11 percent by 2010 and 25 percent by 2020.

The U.S. EPA does not currently regulate greenhouse gases. Notwithstanding the lack of U.S. EPA regulation of GHG emissions, in 2006, the California State Legislature adopted Assembly Bill (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires the California Air Resources Board (CARB), the State agency charged with regulating statewide air quality, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. AB 32 establishes a multi-year timeline for the development and implementation of greenhouse gas reporting and mitigation policy. The first step is the development of so-called “early actions” measures by June 30, 2007. A draft version of these early action measures was circulated for public comment beginning on April 20, 2007. Measures included represent discrete opportunities to achieve greenhouse gas reductions that are proposed to be taking legal effect by January 1, 2010. As the policy making process continues, CARB consider a broader set of mitigation measures, including carbon sequestration projects and best management practices that are technologically feasible and cost-effective. Greenhouse gases as defined under AB 32 include: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

AB 32 requires that by January 1, 2008, CARB shall determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. While the level of 1990 GHG emissions has not yet been approved, other publications indicate that levels varied from 425 to 468 Tg CO_2 Eq. (CEC 2006). In 2004, the emissions were estimated at 492 Tg CO_2 Eq. (CEC 2006). Using the range of 1990 emissions, a reduction of between 5 and 13 percent would be needed to reduce 2004 levels to 1990 levels.

Executive Order S-01-07 was enacted by the Governor on January 18, 2007. Essentially, the order mandates the following: 1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and 2) that a Low Carbon Fuel Standard ("LCFS") for transportation fuels be established for California.

Relationship to CEQA. Guidance is not currently provided in CEQA regarding this topic. It is not included in the Environmental Checklist Form provided in Appendix G of the CEQA Guidelines and significance thresholds for this topic have not been adopted by Lead Agencies to our knowledge.

CEQA does, however, provide guidance regarding topics such as climate change. Sections 15144 and 15145 of the CEQA Guidelines address forecasting and speculation. Guidelines Section 15144 notes that conducting studies for proposed projects necessarily involves some degree of forecasting. While forecasting the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonable can. Section 15145 deals with the difficulty in forecasting where a thorough investigation is unable to resolve an issue and the answer remains purely speculative. The Lead Agency is not required to engage in idle speculation.

Section 15146 of the CEQA guidelines speaks to informed decision-making. The OPR commentary for this section notes that the rule of reason applies and the analysis must be specific enough to permit informed decision making and public participation.

With regard to the topic of climate change, it is possible to document the current state of research regarding this topic and to forecast an emissions inventory for GHGs associated with the Montecito Ranch project at build out. These data are provided in this section to allow for informed decision making and public participating regarding this topic.

4.4.1.2 General Approach

In this section, climate change effects of the proposed project are addressed in two contexts:

1) How does the project affect climate change? This is done by use of forecasting, preparing an emissions inventory for the project based on the project description and features incorporated in the project design.

2) How does climate change affect the project? Due to the global nature of climate change, this cannot be forecast in a project-specific manner but potential effects of global change on factors such as wildfire hazard and water supply reliability are discussed in this section.

4.4.1.3 Existing Conditions

Global Climate Change – General Overview. Global climate change alleged to be caused by GHGs is currently one of the most important and widely debated scientific, economic, and political issues in the United States. Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. Historical records have shown that temperature changes have occurred in the past, such as during previous ice ages. Some data indicates that the current temperature record differs from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of greenhouse gases at 400-450 ppm carbon dioxide-equivalent concentration is required to keep global mean warming below 2° Celsius, which is assumed to be necessary to avoid dangerous climate change (AEP 2007).

Greenhouse Gases. Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs). GHGs are emitted by natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without these natural GHGs, the Earth's surface would be about 61°F cooler (CEC 2006). Emissions from human activities such as electricity production and vehicles have elevated the concentration of these gases in the atmosphere.

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas" (AEP 2007). The reference gas for GWP is carbon dioxide; carbon dioxide has a GWP of one. For example, methane has a GWP of 21, which means that it has a greater global warming effect than carbon dioxide on a molecule per molecule basis. One teragram of carbon dioxide equivalent (Tg CO_2 Eq.) is the emissions of the gas multiplied by the GWP. One teragram is equal to one million metric tons. The carbon dioxide equivalent is a good way to assess emissions because it gives weight to the GWP of the gas. The atmospheric lifetime and GWP of selected greenhouse gases are summarized in Table 16. As shown in the table, GWP ranges from 1 (carbon dioxide) to 23,900 (sulfur hexafluoride).

GHG Inventory. In 2004, total global GHG emissions were 20,135 Tg CO_2 Eq., excluding emissions/removals from land use, land use change, and forestry (UNFCCC 2006). In 2004, the U.S. contributed the most GHG emissions (35% of global emissions). In 2004, GHG emissions in the U.S. were 7074.4 Tg CO_2 Eq., which is an increase of 15.8 percent from 1990 emissions (AEP 2007).

California is a substantial contributor of global GHGs as it is the second largest contributor in the U.S. and the sixteenth largest in the world (AEP 2007). In 2004, California produced 492 Tg CO_2 Eq. (AEP 2007), which is approximately seven percent of U.S. emissions. The major source of GHG in California is transportation, contributing 41 percent of the state's total GHG emissions (AEP 2007). Electricity generation is the second largest source, contributing 22 percent of the state's GHG emissions.

Existing On-site Conditions

Background. Natural vegetation and soils temporarily store carbon as part of the terrestrial carbon cycle. Carbon is assimilated into plants and animals as they grow and then dispersed back into the environment when the die. There are two existing sources of carbon storage at the Montecito Ranch project site: natural vegetation and soils.

Natural Vegetation. Living vegetation stores carbon; however, it is difficult to assess net changes in carbon storage associated with the Montecito Ranch development. The key issue is the balance between the loss of natural vegetation and future carbon storage associated with landscaping and residential development. For example, the community's landscaping palette will feature shrubs and trees which may provide equal or greater carbon storage on a per acre basis. The situation is further complicated by changes in fire regime. Carbon in natural vegetation is likely to be released into the atmosphere through wildfire every 20 to 150 years. Carbon in landscaped areas will be protected from wildfire. The balance between these factors will influence the long-term carbon budget on the site.

Soils. The majority of carbon within the site is stored in the soil. Soil carbon accumulates from inputs of plant and animal matter, roots, and other living components of the soil ecosystem (e.g., bacteria, worms, etc.). Soil carbon is lost through biological respiration, erosion, and other forms of disturbance. Overall, soil carbon moves more slowly through the carbon cycle, and it offers greater potential for long-term carbon storage. Field observations suggest that urban soils can sequester relatively large amounts of carbon, particularly in residential areas where management increases inputs to the soil and reduces disturbance. Observations from across the United States suggest that cities in warmer and drier climates (such as San Diego) may have slightly higher soil organic matter levels when compared to equivalent areas before development.

4.4.2 Guidelines for the Determination of Significance

Guidelines for determination of significance are not currently provided for climate change in CEQA and the Environmental Checklist Form in Appendix G of the CEQA Guidelines does not address this topic. As noted above, AB 32 requires that by January 1, 2008 the state will complete a statewide GHG emissions inventory and approve a GHG emissions limit. This work may provide direction to establish CEQA guidelines for determination of significance for this topic but that information is not available at the present time.

At this time, AB 32 includes the following goals for reduction of GHG emissions:

2000 levels by 2010 (11% below business as usual)
1990 levels by 2020 (25% below business as usual)
80% below 1990 levels by 2050

For purposes of this EIR, a target of 20% below business as usual has been established. This is considered to be an appropriate midpoint between the 2010 and 2020 targets set forth in AB 32 considering the timeframe for construction of the Montecito Ranch Project is within these dates.

The baseline for this guideline as identified in AB 32 is considered to be "business as usual." For purposes of a land development project such as the Montecito Ranch Project, business as usual is considered to be development according to the energy efficiency standards established in Title 24.

A consideration in the analysis is those emissions that are under the operational control of the Project Applicant. The concept of operational control is embodied in the GHG Protocol, the most widely used international accounting tool for government and business leaders to understand, quantify and manage GHG emissions. The GHG Protocol Initiative, a decade-long partnership between the World Resources Institute and the World Business Council for Sustainable Development is working with businesses, governments and environmental groups around the world to build a new generation of credible and effective programs for tackling climate change. The GHG Protocol provides the accounting framework for nearly every GHG standard and program in the world – from the International Standards Organization to the EU Emissions Trading Scheme, to the California Climate Registry, as well as hundreds of GHG inventories prepared by individual companies.

The GHG Protocol Corporate Standard provides standards and guidance for companies and other organizations preparing a GHG emissions inventory. The standard is written primarily from the perspective of a business developing a GHG inventory. The GHG Protocol states that policy makers and architects of GHG programs can also use relevant parts of the GHG Protocol Corporate Standard as a basis for their own accounting and reporting requirements.

The protocol divides GHG emissions into three scopes, ranging from GHGs produced directly by the business to more indirect sources of GHG emissions, such as employee travel and commuting. For purposes of this analysis, the direct and indirect emissions are separated into three broad scopes:

Scope 1 - All direct GHG emissions.

Scope 2 - Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3 - Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. transmission and distribution (T&D) losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

The GHG Protocol Corporate Standard has established two approaches for corporate reporting of GHG emissions – the equity share and the control approach. Under the equity share approach, a company accounts for GHG emissions from operations according to its share of the equity of the operation. This approach is not considered to be applicable for a development project such as the Montecito Ranch Project. Under the control approach, a company accounts for 100 percent of the GHG emissions over which it has control. Control can be defined in either financial or operational terms.

Financial control – A company is considered to have financial control over the operation if it has the ability to direct the financial and operating policies with the view of gaining economic benefits from its activities.

Operational control – A company has operational control over an operation if it has full authority to introduce and implement its operating policies as part of its business activities. This concept is consistent with current accounting and reporting practice of many companies that report on emissions from facilities that they operate.

For purposes of analysis in this EIR, the concept of operational control has been adopted as the one that most applies to applicants of a development project such as the Montecito Ranch Project. The developers/builders will have operational control over certain project factors that generate GHG emissions. These include – natural gas, purchased electricity and energy embodied in water. The developers/builders are not considered to have operational control over transportation emissions since they do not control emissions standards for vehicles, or vehicle purchase choices or driving habitats of residents.

4.4.3 Analysis of Project Effects and Determination of Significance

4.4.3.1 Emissions Inventory

GHG emissions associated with the Montecito Ranch project were estimated separately for four categories of emissions: (1) residential development, (2) charter high school, (3) water consumption, and (4) transportation. The emissions inventory was then categorized according to emissions over which the Project Applicant was considered to have operational control. These include emissions associated with use of natural gas, purchased electricity and energy embodied in water. As noted in Section 4.4.2, the Project Applicant is not considered to have operational control over transportation emissions. A variety of state programs are in place to address transportation emissions as discussed below and in section 4.4.1.

The inventory assumed full implementation of the California Renewable Portfolio Standard (RPS) (20% renewable electric power by 2017 and 33% by 2020). The California Renewable Portfolio Standard is a state policy that requires electricity providers to obtain a minimum percentage of their power from renewable energy resources by a certain date. A utility reduces GHG emissions by replacing fossil fuel-generated energy with GHG-free sources, such as wind and photovoltaics. This is a baseline estimate assuming Title 24-compliant buildings and mandated improvements in the state-wide electricity supply (e.g., implementation of an expanded Renewable Portfolio Standard). Since California already generates about 10 percent of its electricity consumption by renewables, the new law will nearly double the state's existing base of wind, geothermal, biomass and solar energy resources. For conservative purposes, it was assumed that an additional 10 percent reduction in GHG would be achieved through implementation of the California Renewable Portfolio Standard.

Emissions were estimated based on emission factors from the California Climate Action Registry General Reporting Protocol (CCAP 2007).

The complete emissions inventory is summarized below and included in the Appendix.

Residential Emissions. The project proposes to develop 417 residential dwelling units. According to the California Energy Commission (2004), the average annual residential energy use rate is 5,914 kWh per residential unit. Emissions associated with energy use from the high school were estimated based on SCAQMD estimates for energy use (SCAQMD 1993).

Natural gas use was estimated based on average gas consumption per square foot as reported by SCAQMD (SCAQMD 1993). Natural gas consumption was multiplied by the CCAP emission factors for CO_2 equivalents per therm. CO_2 for household and school electricity and natural gas use were combined and converted to metric tons for reporting.

Water. Water use and energy use are often closely linked. The provision of potable water to commercial users and residents consumes large amounts of energy associated with five stages: source and conveyance, treatment, distribution, end use, and wastewater treatment. This inventory estimated that delivered water for the project will have an embodied energy of 2,779 kWh/acre foot or 0.0085 kWh/gallon (Torcellini et al. 2003). Water demand estimates were based on estimates for the Montecito Ranch project. GHG emissions were calculated based on an average consumption of 294,552 gallons per day. The embodied energy demand associated with this water use was converted to GHG emissions with the same electrical grid coefficients as the other purchased electricity.

Transportation. Mobile source GHG emissions were estimated for the community's residential population. Mobile source emissions for this GHG inventory were estimated based on the project Traffic Impact Analysis (Urban Systems 2006). The study estimated future average daily trip (ADT) generation per neighborhood within the community. Information from the U.S. Census Bureau was used to estimate average trip length for Southern California residents in 2020. Based on trends over the last 20 years, a long-term average increase in VMT of 1.6%/year was assumed, which yields a 2020 average trip length of 6.12 miles from a 2007 estimate of 4.98 miles/trip. The estimated ADT was multiplied by an estimated average distance per trip to estimate total annual vehicle miles traveled; which totals approximately 12.5 million vehicle miles per year for all future residents. Emissions of GHG were estimated using the EMFAC2007 emission factors for vehicles.

As previously noted, transportation emissions are not considered to be under the operational control of the Project Applicant. These emissions will, however, be regulated by standards currently being required and implemented at the state level. Standards that will apply to the Montecito Ranch project are summarized in Table 17.

Construction Emissions. Construction emissions for criteria pollutants are analyzed in detail in Section 4.1 of this Air Quality Technical Report. Based on emission factors from the OFFROAD model for heavy construction equipment, and from the EMFAC2007 model for on-road vehicles, total greenhouse gases associated with construction are estimated at 19,228 tons (17,444 metric tons) of CO_2 total for the duration of construction.

Carbon Capture. The project will also remove existing vegetation from the site that temporarily stores carbon as part of the terrestrial carbon cycle. Over time, residential landscaping and soils may increase carbon storage compared to predevelopment conditions; however, these gains may be offset by vegetation and soil storage lost to more extensive impervious surface areas. It is difficult to predict the net change, but it is expected to be relatively small.

Anticipated Emissions Reductions with Project Design Features. The results of the inventory for emissions under the operational control of the project applicant are presented in Table 18. These include GHG emissions associated with buildings (natural gas, purchased electricity) and landscaping (energy embodied in potable water). Table 18 summarizes projected emissions using the methodologies noted above for the emissions inventory and presents anticipated reductions based upon the incorporation of project design features proposed by the Project Applicant.

Project Design Features (PDFs) proposed by the Project Applicant are presented in Table 19. As shown in Table 19, a wider range of PDFs are incorporated in the project ranging from water use efficiency to building energy efficiency and landscaping, to smart growth land use patterns, solid waste diversion and education.

Under the treatment plant option, the Proposed Project would generate approximately 123 acre-feet per year of reclaimed water, which amounts to approximately 110,000 gallons per day. All reclaimed water would be used for Project landscaping, thus eliminating the need to import this amount of water. In addition, water efficiency measures that would be included in the project design would include low-flow appliances, a drought-tolerant landscape palette, weather-based irrigation controllers, and other water conservation measures that would result in a 50% reduction in water use over “business as usual.”

Building energy efficiency measures include overall building energy performance equivalent to 10% below current Title 24 standards. This will be achieved through a variety of measures in the design of the residences. The residents at Montecito Ranch will be offered a choice of energy efficient appliances (including washers/dryers and refrigerators) and appliances installed by builders will be Energy Star (including dishwashers).

The use of smart growth land use patterns that reduce the amount of land being developed will reduce GHG emissions. In addition, the Montecito Ranch Project includes pedestrian, bicycle, and equestrian trails that connect with the Ramona trail system and encourage alternative transportation to commercial centers in Ramona. The Project Applicant will also provide educational materials for residents and commercial tenants discussing strategies to reduce GHG emissions consistent with CARB's Early Action Guidance regarding reduction of GHG emissions.

4.4.3.2 Summary of Impacts

The proposed project would generate GHG emissions associated with natural gas, purchased electricity and energy embodied in water. Project design features are incorporated in the project to reduce GHG emissions under the operational control of the Project Applicant.

Climate change may affect the project by potentially increasing the risk of wildfire hazard and affecting water supply reliability. It is not possible to quantify or forecast these effects at this time.

4.4.4 Cumulative Impact Analysis

A forecast for GHG emissions in the San Diego Air Basin or in California is not currently available. As noted above, it is estimated that California produces about 7 percent of U.S. GHG emissions with about 41% of those emissions related to transportation and about 22% related to electricity. As noted above, AB 32 calls for CARB to have a state-wide emissions inventory completed by July 1, 2008. The statewide inventory may be helpful in establishing a baseline forecast for analysis of GHG emissions in CEQA documents.

Implementation of the Montecito Ranch project would result in GHG emissions as documented in Section 4.4.3. Significant direct impacts associated with those emissions are not anticipated due to features incorporated in the project that would result in a greater than 20% reduction in emissions compared to "business as usual." AB 32 provides statewide wide guidance for reductions below "business as usual." Projected GHG reductions would exceed AB 32 guidelines by providing reductions greater than 20% below "business as usual." The project would also comply with any state-mandated requirements resulting from AB 32 and the statewide emissions inventory expected to be completed by January 2008 as well as any County requirements resulting from the GP 2020 process. Project-specific reductions below the AB 32 guidelines and compliance with future statewide and County programs would avoid significant cumulative impacts of the project on GHG emissions.

Table 16
Global Warming Potentials and Atmospheric Lifetimes

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50 – 200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11700
HFC-134a	14.6	1300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CF4)	50000	6500
PFC: Hexafluoroethane (C2F6)	10000	9200
Sulfur Hexafluoride (SF6)	3200	23900

Source: EPA 2006

Table 17
Current State Requirements for GHG Emissions Associated with Transportation

Strategy to Reduce GHG Emissions	Current State Requirements
Vehicle Climate Change Standards and Other Light Duty Vehicle Technology	This measure applies to motor vehicles. The California Air Resources Board (CARB) is required (AB 1493) adopt regulations that achieve the maximum feasible, cost-effective, and technologically achievable reductions of greenhouse gas pollution emitted by new passenger vehicles. Implementation of AB 1493 would reduce fleet-wide vehicle GHG emissions by 20% in 2020.
Low-Carbon Fuels Standard	This measure applies to motor vehicle fuels. By 2020, motor fuels sold in California will have 10% low carbon intensity when compared to equivalent fuel sold in 2007. This standard will reduce greenhouse gas emissions from vehicles (and other gasoline power engines) associated with the Montecito Ranch project.
Telework	All residential units will have access to high-speed Internet connections suitable for telecommuting (CARB Early Action Measure 2-21).

Table 18
GHG Emissions under Operational Control of Project Applicant

Category	Source	Metric T CO2e/year	Absolute GHG reduction	Percentage GHG reduction
Direct emissions	Natural gas (Scope 1)	688		
	Reduction due to 10% increase over Title 24 standards		69	10%
Indirect emissions	Purchased electricity (Scope 2)	1,784		
	Reduction due to Renewable Portfolio Standard		178	10%
	Reduction due to 10% increase over Title 24 standards		178	10%
	Embodied energy of water (Scope 3)	334		
	Reduction due to use of reclaimed water		209	37.5%
Transportation	ADT method (Scope 3)	7,150		
TOTAL	Direct + Indirect + Transportation	9,956		
TOTAL	Operational control*	2,806		
	Reductions		634	22.5%

* direct + indirect emissions

Table 19
Proposed Project Design Features to Reduce GHG Emissions

Strategy to Reduce GHG Emissions	Proposed Project Design Features
Alternative Transportation	The Montecito Ranch Project will include pedestrian, bicycle, and equestrian trails that connect with the Ramona trail system and allow alternative transportation access to commercial centers.
Achieve 50% Statewide Diversion Goal	Montecito Ranch will provide residents with separate recycling and waste receptacles to support the 50% state-wide solid waste diversion goal (AB 939). Montecito Ranch will require separation and recycling of construction waste.
Forestry	The Montecito Ranch landscaping palette will include drought-tolerant trees. These plantings will contribute to on-site carbon storage, provide shade, and reduce heating from impervious surfaces (CARB Early Action Measure/Energy Efficiency 2-9).
Afforestation/Reforestation	The Montecito Ranch compact land-use patterns reduce habitat fragmentation and contribute to the preservation of natural habitats, including forests and woodlands.
Reclaimed Water Usage	Montecito Ranch will generate 110,000 gallons per day of reclaimed water, which will be used for irrigation purposes. Use of reclaimed water will reduce imported water needs by approximately 37%.
Water Use Efficiency	Montecito Ranch will strive for a 50% reduction in water use through features such as low-flow appliances (incl. toilets, shower heads, washing machines), a drought-tolerant landscape palette, weather-based irrigation controllers, and other water conservation measures
Building Energy Efficiency	Buildings at Montecito Ranch will achieve energy performance equivalent to 10% better than current Title 24 standards.
Appliance Energy Efficiency	Residents at Montecito Ranch will be offered a choice of energy efficient appliances (including washer/dryers, refrigerators) and appliances installed by builders will be Energy Star (including dishwashers).
Smart Growth Land Use Patterns	Smart growth land use patterns that reduce the amount of land being developed with reduce greenhouse gas emissions.
Education	Montecito Ranch will provide educational materials for residents discussing strategies for reducing GHG emissions associated with the operation of their buildings (CARB Early Action Measure/Education 2-7).

5.0 Cumulative Impacts

In analyzing cumulative impacts from a proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the San Diego Air Basin is listed as "non-attainment" for the State AAQS. A project that has a significant impact on air quality with regard to emissions of PM_{10}, NO_x and/or VOCs as determined by the screening criteria outlined above would have a significant cumulative effect. In the event direct impacts from a project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed, or reasonably foreseeable future projects are in excess of screening levels identified above, and the project's contribution accounts for more than an insignificant proportion of the cumulative total emissions.

With regard to past and present projects, the background ambient air quality, as measured at the monitoring stations maintained and operated by the San Diego Air Pollution Control District, measures the concentrations of pollutants from existing sources. Past and present project impacts are therefore included in the background ambient air quality data. As discussed in the Traffic Impact Analysis, the County Department of Planning and Land Use identified 80 projects that could contribute to cumulative impacts in the Ramona area. Of these projects, 49 were identified in the Traffic Impact Analysis as potentially contributing to traffic. These projects were included in the cumulative traffic impacts, and thus in the CO "hot spots" modeling.

PM_{10} and $PM_{2.5}$ emissions associated with construction generally result in near-field impacts. While emissions are below the screening-level thresholds for the project, there is a potential that projects could be graded simultaneously with the Montecito Ranch project. Because fugitive dust is a localized impact, projects that could be graded simultaneously within one mile of the project site were identified. Projects within one mile of the Montecito Ranch project include the following:

- TM 5091 – Barrett/Hibbard Subdivision (12 single-family residences)
- TM 5194 – Teyssier Major Residential Subdivision (36 lots)
- TM 5244 – Stonecrest Development (14 lots)
- BC97-01641 TPM 13136 – Clifford Douglas Subdivision (7 lots)
- TPM 19214 RPL – Doshi Property (5 lots)
- TPM 20615 – Weinstock Project (5 lots)
- TPM 20465 – Cavins Property (5 lots)
- TPM 20498 – Bagley-Quisenberry (5 lots)
- TPM 20764 – Thompson TPM (1 single-family residence)

- MUP 00-004 – Boyne Valley Ranch (increase beds and 11 new parking spaces)
- TPM 20403 RPL1 – Bushey (3 lots)
- TPM 20463 – Herold TPM (4 lots)
- TPM 20442 – Rakos Lot Split (4 parcels)
- TPM 20801 – Herman Minor Subdivision (9.2 acres)
- TPM 20826 – Giffin Minor Subdivision
- TPM 20598 – Dahl Residential Subdivision (4 lots)
- TPM 20983 – Scherer Lot Split (2 lots)
- Ramona Airport Runway Rehabilitation
- Ramona Airport Terminal Apron Improvements

None of these projects is under the control of the applicant, and it is not possible to determine grading schedules of the projects listed above. Most of the projects are minor lot splits or small (i.e., 5 lots or less) subdivisions, and projects were all identified as having less than significant air quality impacts. The larger projects in the vicinity of the Montecito Ranch project are not on the same construction schedule and would not undergo mass grading at the same time as the Montecito Ranch project. Because fugitive dust impacts are localized, and because the projects listed above are small, the fugitive dust generated from grading plus the fugitive dust from the project grading phase would not be above the significance thresholds and would therefore not result in a cumulative PM_{10} impact. Furthermore, all projects will be required to comply with the County's grading ordinance which requires implementation of dust control measures to reduce fugitive dust generated during grading.

Because the project's VOC emissions during construction would be above the significance threshold, however, the project would have a cumulatively significant, but temporary, impact on the air quality.

With regard to cumulative impacts associated with ozone precursors, in general, provided a project is consistent with the community and general plans, it has been accounted for in the ozone attainment demonstration contained within the State Implementation Plan and would not cause a cumulatively significant impact on the ambient air quality for ozone. An evaluation was conducted of the project's consistency with SANDAG's housing forecast for San Diego County to determine the project's consistency with the RAQS and SIP.

The project is located in SANDAG's East Suburban Major Statistical Area, in the Ramona Subregional Area. The projected housing growth from 2000 to 2030 is 123,405 housing units for the Major Statistical Area and 20,352 housing units for the Ramona Subregional Area. The project is proposing to construct 417 housing units, which would comprise only 2.05 percent of the total projected housing growth in the Ramona Subregional Area, and only 0.34 percent of the total projected housing growth in the East Suburban Major Statistical Area. The cumulative projects listed identified in by the County Department of Planning and Land Use account for an additional 1,439 housing units in the Ramona area. Thus the cumulative growth accounts for only 9.127 percent of the total projected growth in the Ramona Subregional Area and would therefore be consistent with the 2030 Cities/County Forecast for housing growth. The project would be consistent with the growth forecasts for the region and would therefore be in conformity with the RAQS and SIP.

The planned or reasonably foreseeable projects were generally accounted for in the Traffic Impact Analysis, and were therefore considered in the evaluation of CO "hot spots." Based on the CO "hot spots" evaluation, a cumulative impact associated with traffic emissions is not anticipated.

Odor impacts from the project would be less than significant. As there is no existing regional cumulative odor issue, the contribution from the project would not cause or contribute to a cumulative odor impact. Therefore, no cumulatively significant odor impacts would occur.

6.0 Mitigation Measures

While not technically considered mitigation measures because they are included as part of the project design and are required under the San Diego County Grading Ordinance, the following best management practices to control fugitive dust will be employed:

- Three applications of water daily during grading between dozer/scraper passes
- Paving, chip sealing or chemical stabilization of internal roadways after completion of grading
- Use of sweepers or water trucks to remove "track-out" at any point of public street access
- Stabilization of dirt storage piles by chemical binders, tarps, fencing or other erosion control
- Reduce speeds on unpaved surfaces to 15 mph or less
- Water unpaved roads 3 times daily
- Replace ground cover in disturbed areas quickly
- Control of fugitive dust during loading/unloading activities
- Application of soil stabilizers to inactive sites

Use of these best management practices reduces emissions of fugitive dust to levels that are less than significant.

As discussed in Section 4.1, emissions of VOCs would be above the screening-level thresholds during application of architectural coatings based on the SCAQMD emission factors, assuming coatings would contain 250 grams/liter of VOCs and would be applied using high pressure-low volume spray equipment or by hand application. To mitigate impacts to the extent possible, the project will utilize low-VOC coatings where possible that meet the requirements of SDAPCD Rule 67.0. Coatings will generally be water-based and will typically meet a VOC content of 150 grams/liter or less, except for specialty coatings that may be needed in minor amounts on trim.

Tables 20a and 20b present the emissions for residential construction, and for maximum daily simultaneous emissions during utilities installation and Phase 1 residential construction, assuming mitigation of VOC impacts using low-VOC coatings with a VOC content of 150 grams/liter on average. As shown in the tables, the emissions from the individual construction phase would be mitigated to a level less than the screening-level thresholds, but the maximum simultaneous emissions would remain above the significance threshold and would not be mitigable to below a level of significance. It is not feasible to reduce the amount of painting or number of houses that could be painted in a single day because such a restriction would limit painting to require the applicant to paint less than one house in a single day; it would therefore require approximately two years to complete house painting and houses would have to remain vacant for that time period until painting could be completed.

Table 20a MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS House Construction with Mitigation						
Emission Source	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Phase 1						
Heavy Equipment Exhaust	13.02	4.43	12.67	4.68	1.20	1.07
Worker Travel – Vehicle Emissions	134.38	6.97	12.80	0.09	0.87	0.86
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Architectural Coatings	-	46.89	-	-	-	-
TOTAL	**161.83**	**62.09**	**83.64**	**4.89**	**3.92**	**3.76**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Phase 2						
Heavy Equipment Exhaust	13.02	4.43	12.67	4.68	1.20	1.07
Worker Travel – Vehicle Emissions	134.38	6.97	12.80	0.09	0.87	0.86
Construction Truck Travel – Vehicle Emissions	14.43	3.80	58.17	0.12	1.85	1.83
Architectural Coatings	-	33.58	-	-	-	-
TOTAL	**161.83**	**48.78**	**83.64**	**4.89**	**3.92**	**3.76**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 20b MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS Total with Mitigation						
Construction Phase	**CO**	**VOCs**	**NO_x**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Lbs/day						
Underground Utilities	114.17	27.40	132.89	26.25	8.78	8.02
House Construction (Phase 1)	161.83	62.09	83.64	4.89	3.92	3.76
TOTAL	**276.00**	**89.49**	**216.53**	**31.14**	**12.70**	**11.78**
Screening-Level Thresholds	550	75	250	250	100	55
Above Thresholds?	*No*	*Yes*	*No*	*No*	*No*	*No*

Because emissions would remain above the significance threshold for VOCs, which are ozone precursors, an additional mitigation measure will be adopted to further reduce emissions from heavy equipment. In accordance with County of San Diego Department of Planning and Land Use requirements, the project will require ten percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or ARB certified Tier I, II, or III equipment. Ten percent was determined to be a reasonable requirement based on the amount of contractors whose fleets have already been retrofit and engines repowered as a result of the local and neighboring Carl Moyer Programs. With use of ten percent of the construction fleet retrofit and/or repowered and use of low-VOC coatings, the project would mitigate emissions to the extent feasible.

7.0 Conclusions and Recommendations

In summary, the proposed project would result in emissions of air pollutants for both the construction phase and operational phase of the project. The air quality impact analysis evaluated the potential for adverse impacts to the ambient air quality due to construction and operational emissions. Construction emissions would include emissions associated with fugitive dust, heavy construction equipment and construction workers commuting to and from the site. As shown in Tables 5a through 5f the construction emissions would be below the screening-level thresholds for all pollutants except VOCs for the maximum daily emissions due to architectural coatings use. This impact would be temporary.

The project would therefore pose a significant, but temporary, impact on the ambient air quality during construction. Mitigation measures have been proposed to reduce the impacts to the extent possible. Despite implementation of these measures to reduce emissions associated with construction, the construction impacts would remain significant but would be temporary. An evaluation of health risks associated with exposure during construction indicated that impacts would be less than significant. As discussed under cumulative impacts in Section 5.0, project construction would result in a cumulatively significant, but temporary, impact on the ambient air quality. Construction odor impacts would be less than significant.

Operational emissions would be associated with area sources, including energy use, landscaping, and consumer products use, and with vehicular traffic. Based on the estimates of the emissions associated with project operations, the emissions would be below the screening-level thresholds for operation, assuming that Unit 1 is fully occupied by 2010, and that Unit 2 is fully occupied by 2015. Thus the impacts are less than significant. As discussed under cumulative impacts in Section 5.0, the project would be consistent with County growth projections.

A health risk assessment was conducted to evaluate the potential for adverse impacts due to exposure to project-generated diesel emissions from diesel-powered vehicles operating at the site. The assessment indicated that impacts were less than significant.

An odor assessment and health risk calculation was also conducted for the WRF that is proposed as an option for the project. The assessment indicated that no significant odor impacts or health risks would be associated with WRF operations.

Finally, the project would be consistent with County growth projections for the Major Statistical Area and Ramona Subregional Area as projected by SANDAG, and would therefore not result in a cumulatively significant impact.

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Appendix A

Emission Calculations

Modeling Outputs

Table A-1
Rough Grading Emissions
Montecito Ranch

GRADING OPERATIONS
Phase 1 Grading
Phase 1A Clear and Grub

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
D-8R Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	4	5.80	1.57	9.58	3.36	0.87	0.01	0.00	0.02	0.01	0.001733
Tub Grinder - Gasoline (Shredder)	8	36	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	4	0.13	0.05	0.12	0.05	0.01	0.00	0.00	0.00	0.00	0.00
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	4	2.19	0.59	3.62	1.27	0.33	0.00	0.00	0.01	0.00	0.00
High Side End Dumps (dump trucks)	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	4	8	4	37.36	12.91	34.49	12.83	3.29	0.07	0.03	0.07	0.03	0.01
											45.49	**15.12**	**47.82**	**17.51**	**4.50**	**0.09**	**0.03**	**0.10**	**0.04**	**0.01**

Phase 1C Mass Excavation

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
D-10R Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	25	5.80	1.57	9.58	3.36	0.87	0.07	0.02	0.12	0.04	0.01
D-9L Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	25	5.80	1.57	9.58	3.36	0.87	0.07	0.02	0.12	0.04	0.01
834B Rubber Tire Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	25	5.80	1.57	9.58	3.36	0.87	0.07	0.02	0.12	0.04	0.01
Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	25	28.02	9.68	25.87	9.62	2.47	0.35	0.12	0.32	0.12	0.03
Motor Grader	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	25	2.49	0.67	4.11	1.44	0.37	0.03	0.01	0.05	0.02	0.00
657E Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	8	8	25	38.92	10.55	64.27	22.54	5.81	0.49	0.13	0.80	0.28	0.07
											86.83	**25.63**	**123.00**	**43.68**	**11.25**	**1.09**	**0.32**	**1.54**	**0.55**	**0.14**

Phase 1D Remove & Recompact

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
High Side End Dumps (dump trucks)	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	4	8	65	37.36	12.91	34.49	12.83	3.29	1.21	0.42	1.12	0.42	0.11
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	65	2.19	0.59	3.62	1.27	0.33	0.07	0.02	0.12	0.04	0.01
Roller Compactors	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	4	8	65	6.29	1.71	10.39	3.64	0.94	0.20	0.06	0.34	0.12	0.03
											45.84	**15.21**	**48.50**	**17.74**	**4.56**	**1.49**	**0.49**	**1.58**	**0.58**	**0.15**

Phase 1F Finish Grade

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	18	28.02	9.68	25.87	9.62	2.47	0.25	0.09	0.23	0.09	0.02
Motor Grader	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	18	2.49	0.67	4.11	1.44	0.37	0.02	0.01	0.04	0.01	0.00
657E Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	8	8	18	38.92	10.55	64.27	22.54	5.81	0.35	0.09	0.58	0.20	0.05
											69.42	**20.91**	**94.25**	**33.60**	**8.65**	**0.62**	**0.19**	**0.85**	**0.30**	**0.08**
																3.29	1.03	4.06	1.46	0.38

Phase 2 Grading
Phase 2A Clear and Grub

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
D-8R Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	5	5.80	1.57	9.58	3.36	0.87	0.01	0.00	0.02	0.01	0.002166
Tub Grinder	8	36	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	5	0.13	0.05	0.12	0.05	0.01	0.00	0.00	0.00	0.00	0.00
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	5	2.19	0.59	3.62	1.27	0.33	0.01	0.00	0.01	0.00	0.00
High Side End Dumps (dump trucks)	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	4	8	5	37.36	12.91	34.49	12.83	3.29	0.09	0.03	0.09	0.03	0.01
											45.49	**15.12**	**47.82**	**17.51**	**4.50**	**0.11**	**0.04**	**0.12**	**0.04**	**0.01**

Phase 2B Mass Excavation

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
D-10R Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	5.80	1.57	9.58	3.36	0.87	0.04	0.01	0.07	0.03	0.01
D-9L Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	5.80	1.57	9.58	3.36	0.87	0.04	0.01	0.07	0.03	0.01
834B Rubber Tire Dozer	356	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	5.80	1.57	9.58	3.36	0.87	0.04	0.01	0.07	0.03	0.01
Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	15	28.02	9.68	25.87	9.62	2.47	0.21	0.07	0.19	0.07	0.02
Motor Grader	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	2.49	0.67	4.11	1.44	0.37	0.02	0.01	0.03	0.01	0.00
657E Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	8	8	15	38.92	10.55	64.27	22.54	5.81	0.29	0.08	0.48	0.17	0.04
											86.83	**25.63**	**123.00**	**43.68**	**11.25**	**0.65**	**0.19**	**0.92**	**0.33**	**0.08**

Table A-1
Rough Grading Emissions
Montecito Ranch

GRADING OPERATIONS

Phase 2C Remove & Recompact

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
High Side End Dumps (dump trucks)	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	4	8	69	37.36	12.91	34.49	12.83	3.29	1.29	0.45	1.19	0.44	0.11
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	69	2.19	0.59	3.62	1.27	0.33	0.08	0.02	0.12	0.04	0.01
Roller Compactors	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	4	8	69	6.29	1.71	10.39	3.64	0.94	0.22	0.06	0.36	0.13	0.03
											45.84	**15.21**	**48.50**	**17.74**	**4.56**	**1.58**	**0.52**	**1.67**	**0.61**	**0.16**

Phase 2E Finish Grade

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	35	28.02	9.68	25.87	9.62	2.47	0.49	0.17	0.45	0.17	0.04
Motor Grader	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	35	2.49	0.67	4.11	1.44	0.37	0.04	0.01	0.07	0.03	0.01
657E Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	8	8	35	38.92	10.55	64.27	22.54	5.81	0.68	0.18	1.12	0.39	0.10
											69.42	**20.91**	**94.25**	**33.60**	**8.65**	**1.21**	**0.37**	**1.65**	**0.59**	**0.15**

Phase 2F Erosion Control

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Landscaping Trucks	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	141	11.46	3.96	10.58	3.94	1.01	0.81	0.28	0.75	0.28	0.07
											11.46	**3.96**	**10.58**	**3.94**	**1.01**	**0.81**	**0.28**	**0.75**	**0.28**	**0.07**
																4.37	1.40	5.11	1.85	0.48

		Total days
Total diesel particulate emissions, tons	**0.85**	**377.00**

UNDERGROUND UTILITIES AND SURFACE IMPROVEMENTS
Phase 1 Underground Utilities
Phase 1A Storm Drain

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
245 Excavator	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.07	0.02	0.01
235 Excavator with Compaction Wheel	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.07	0.02	0.01
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	2.19	0.59	3.62	1.27	0.33	0.10	0.03	0.16	0.06	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	88	9.34	3.23	8.62	3.21	0.82	0.41	0.14	0.38	0.14	0.04
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	88	3.82	1.32	3.53	1.31	0.34	0.17	0.06	0.16	0.06	0.01
											17.15	**5.63**	**18.74**	**6.83**	**1.76**	**0.75**	**0.25**	**0.82**	**0.30**	**0.08**

Phase 1B Sewer

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
245 Excavator	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	80	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.06	0.02	0.01
235 Excavator with Compaction Wheel	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	80	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.06	0.02	0.01
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	80	2.19	0.59	3.62	1.27	0.33	0.09	0.02	0.14	0.05	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	80	9.34	3.23	8.62	3.21	0.82	0.37	0.13	0.34	0.13	0.03
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	80	3.82	1.32	3.53	1.31	0.34	0.15	0.05	0.14	0.05	0.01
											17.15	**5.63**	**18.74**	**6.83**	**1.76**	**0.69**	**0.23**	**0.75**	**0.27**	**0.07**

Phase 1C Water

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
245 Excavator	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	60	0.90	0.24	1.48	0.52	0.13	0.03	0.01	0.04	0.02	0.00
235 Excavator with Compaction Wheel	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	60	0.90	0.24	1.48	0.52	0.13	0.03	0.01	0.04	0.02	0.00
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	60	2.19	0.59	3.62	1.27	0.33	0.07	0.02	0.11	0.04	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	60	9.34	3.23	8.62	3.21	0.82	0.28	0.10	0.26	0.10	0.02
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	60	3.82	1.32	3.53	1.31	0.34	0.11	0.04	0.11	0.04	0.01
											17.15	**5.63**	**18.74**	**6.83**	**1.76**	**0.51**	**0.17**	**0.56**	**0.20**	**0.05**

Phase 1D Dry Utilities

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
446B Backhoe	77	46.5	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	2	8	88	3.34	1.15	3.08	1.15	0.29	0.15	0.05	0.14	0.05	0.01
950 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	2.19	0.59	3.62	1.27	0.33	0.10	0.03	0.16	0.06	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	88	9.34	3.23	8.62	3.21	0.82	0.41	0.14	0.38	0.14	0.04
											14.87	**4.97**	**15.33**	**5.62**	**1.45**	**0.65**	**0.22**	**0.67**	**0.25**	**0.06**
											66.31	21.86	71.53	26.11	6.71	2.61	0.86	2.81	1.03	0.26

Phase 2 Surface Improvements
Phase 2A Balance/Fine Grade

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
14G Blade (Motor Grader)	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	2	8	75	4.98	1.35	8.22	2.88	0.74	0.19	0.05	0.31	0.11	0.03
623 Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	75	4.86	1.32	8.03	2.82	0.73	0.18	0.05	0.30	0.11	0.03
Vibratory Roller	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	75	1.57	0.43	2.60	0.91	0.23	0.06	0.02	0.10	0.03	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	75	9.34	3.23	8.62	3.21	0.82	0.35	0.12	0.32	0.12	0.03
											20.75	**6.32**	**27.47**	**9.82**	**2.53**	**0.78**	**0.24**	**1.03**	**0.37**	**0.09**

Phase 2B Curb & Gutter/Sidewalks/Driveways

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
Curb Machine (Concrete Pavers)	130	62	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	82	2.23	0.60	3.68	1.29	0.33	0.09	0.02	0.15	0.05	0.01
Pavers	130	62	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	82	2.23	0.60	3.68	1.29	0.33	0.09	0.02	0.15	0.05	0.01
											4.45	**1.21**	**7.36**	**2.58**	**0.67**	**0.18**	**0.05**	**0.30**	**0.11**	**0.03**

Phase 2C Street Lights

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
Crane	194	43	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	14	3.89	1.34	3.59	1.33	0.34	0.03	0.01	0.03	0.01	0.00
											3.89	**1.34**	**3.59**	**1.33**	**0.34**	**0.03**	**0.01**	**0.03**	**0.01**	**0.00**

Table A-2
Underground Utilities and Surface Improvments
Phase 1
Montecito Ranch

UNDERGROUND UTILITIES AND SURFACE IMPROVEMENTS

Phase 2D Base/AC Paving

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Paving Machine	91	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	20	1.48	0.40	2.45	0.86	0.22	0.01	0.00	0.02	0.01	0.00
Roller	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	3	8	20	4.72	1.28	7.79	2.73	0.70	0.05	0.01	0.08	0.03	0.01
											6.20	**1.68**	**10.24**	**3.59**	**0.93**	**0.06**	**0.02**	**0.10**	**0.04**	**0.01**

Phase 2E Signage/Striping

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Skiploader	39	51.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	0.55	0.15	0.92	0.32	0.08	0.00	0.00	0.01	0.00	0.00
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	15	3.82	1.32	3.53	1.31	0.34	0.03	0.01	0.03	0.01	0.00
											4.37	**1.47**	**4.44**	**1.63**	**0.42**	**0.03**	**0.01**	**0.03**	**0.01**	**0.00**
											#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

Phase 3 Landscaping
Phase 3A Planting & Irrigation, Trails, Parks

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Landscaping Trucks	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	88	11.46	3.96	10.58	3.94	1.01	0.50	0.17	0.47	0.17	0.04
											11.46	**3.96**	**10.58**	**3.94**	**1.01**	**0.50**	**0.17**	**0.47**	**0.17**	**0.04**

		Total days
Total diesel particulate, tons	**0.45**	610

Table A-3
Underground Utilities and Surface Improvments
Phase 2
Montecito Ranch

UNDERGROUND UTILITIES AND SURFACE IMPROVEMENTS
Phase 1 Underground Utilities
Phase 1A Storm Drain

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
245 Excavator	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.07	0.02	0.01
235 Excavator with Compaction Wheel	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.07	0.02	0.01
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	2.19	0.59	3.62	1.27	0.33	0.10	0.03	0.16	0.06	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	88	9.34	3.23	8.62	3.21	0.82	0.41	0.14	0.38	0.14	0.04
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	88	3.82	1.32	3.53	1.31	0.34	0.17	0.06	0.16	0.06	0.01
											17.15	**5.63**	**18.74**	**6.83**	**1.76**	**0.75**	**0.25**	**0.82**	**0.30**	**0.08**

Phase 1B Sewer

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
245 Excavator	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	80	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.06	0.02	0.01
235 Excavator with Compaction Wheel	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	80	0.90	0.24	1.48	0.52	0.13	0.04	0.01	0.06	0.02	0.01
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	80	2.19	0.59	3.62	1.27	0.33	0.09	0.02	0.14	0.05	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	80	9.34	3.23	8.62	3.21	0.82	0.37	0.13	0.34	0.13	0.03
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	80	3.82	1.32	3.53	1.31	0.34	0.15	0.05	0.14	0.05	0.01
											17.15	**5.63**	**18.74**	**6.83**	**1.76**	**0.69**	**0.23**	**0.75**	**0.27**	**0.07**

Phase 1C Water

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
245 Excavator	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	60	0.90	0.24	1.48	0.52	0.13	0.03	0.01	0.04	0.02	0.00
235 Excavator with Compaction Wheel	56	58	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	60	0.90	0.24	1.48	0.52	0.13	0.03	0.01	0.04	0.02	0.00
966 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	60	2.19	0.59	3.62	1.27	0.33	0.07	0.02	0.11	0.04	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	60	9.34	3.23	8.62	3.21	0.82	0.28	0.10	0.26	0.10	0.02
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	60	3.82	1.32	3.53	1.31	0.34	0.11	0.04	0.11	0.04	0.01
											17.15	**5.63**	**18.74**	**6.83**	**1.76**	**0.51**	**0.17**	**0.56**	**0.20**	**0.05**

Phase 1D Dry Utilities

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
446B Backhoe	77	46.5	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	2	8	88	3.34	1.15	3.08	1.15	0.29	0.15	0.05	0.14	0.05	0.01
950 Loader	147	54	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	88	2.19	0.59	3.62	1.27	0.33	0.10	0.03	0.16	0.06	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	88	9.34	3.23	8.62	3.21	0.82	0.41	0.14	0.38	0.14	0.04
											14.87	**4.97**	**15.33**	**5.62**	**1.45**	**0.65**	**0.22**	**0.67**	**0.25**	**0.06**
							Simultaneous Activity				66.31	21.86	71.53	26.11	6.71	2.61	0.86	2.81	1.03	0.26

Phase 2 Surface Improvements
Phase 2A Balance/Fine Grade

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
14G Blade (Motor Grader)	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	2	8	75	4.98	1.35	8.22	2.88	0.74	0.19	0.05	0.31	0.11	0.03
623 Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	75	4.86	1.32	8.03	2.82	0.73	0.18	0.05	0.30	0.11	0.03
Vibratory Roller	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	75	1.57	0.43	2.60	0.91	0.23	0.06	0.02	0.10	0.03	0.01
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	75	9.34	3.23	8.62	3.21	0.82	0.35	0.12	0.32	0.12	0.03
											20.75	**6.32**	**27.47**	**9.82**	**2.53**	**0.78**	**0.24**	**1.03**	**0.37**	**0.09**

Phase 2B Curb & Gutter/Sidewalks/Driveways

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
Curb Machine (Concrete Pavers)	130	62	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	82	2.23	0.60	3.68	1.29	0.33	0.09	0.02	0.15	0.05	0.01
Pavers	130	62	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	82	2.23	0.60	3.68	1.29	0.33	0.09	0.02	0.15	0.05	0.01
											4.45	**1.21**	**7.36**	**2.58**	**0.67**	**0.18**	**0.05**	**0.30**	**0.11**	**0.03**

Phase 2C Street Lights

Equipment	HP	Load	Emission Factors (lb/bhp-hr)					No of	Hrs Per	Days in	Emissions, lbs/day					Emission, tons (total)				
		Factor	CO	VOC	NOX	SOX	PM10	Equip	Day	Service	CO	VOC	NOX	SOX	PM10	CO	VOC	NOX	SOX	PM10
Crane	194	43	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	14	3.89	1.34	3.59	1.33	0.34	0.03	0.01	0.03	0.01	0.00
											3.89	**1.34**	**3.59**	**1.33**	**0.34**	**0.03**	**0.01**	**0.03**	**0.01**	**0.00**

Table A-3
Underground Utilities and Surface Improvments
Phase 2
Montecito Ranch

UNDERGROUND UTILITIES AND SURFACE IMPROVEMENTS

Phase 2D Base/AC Paving

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Paving Machine	91	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	20	1.48	0.40	2.45	0.86	0.22	0.01	0.00	0.02	0.01	0.00
Roller	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	3	8	20	4.72	1.28	7.79	2.73	0.70	0.05	0.01	0.08	0.03	0.01
											6.20	**1.68**	**10.24**	**3.59**	**0.93**	**0.06**	**0.02**	**0.10**	**0.04**	**0.01**

Phase 2E Signage/Striping

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Skiploader	39	51.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	0.55	0.15	0.92	0.32	0.08	0.00	0.00	0.01	0.00	0.00
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	15	3.82	1.32	3.53	1.31	0.34	0.03	0.01	0.03	0.01	0.00
											4.37	**1.47**	**4.44**	**1.63**	**0.42**	**0.03**	**0.01**	**0.03**	**0.01**	**0.00**
							Simultaneous Activity				#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

Phase 3 Landscaping
Phase 3A Planting & Irrigation, Trails, Parks

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10	
Landscaping Trucks	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	3	8	88	11.46	3.96	10.58	3.94	1.01	0.50	0.17	0.47	0.17	0.04	
											11.46	**3.96**	**10.58**	**3.94**	**1.01**	**0.50**	**0.17**	**0.47**	**0.17**	**0.04**	
																					Total days
							Total diesel particulate, tons													**0.45**	610

Table A-4
House Construction Emissions
Montecito Ranch

HOUSE CONSTRUCTION
Phase

Equipment - Fuel	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Cranes	194	43	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	500	3.89	1.34	3.59	1.33	0.34	0.97	0.34	0.90	0.33	0.09
Generator Sets	22	74	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	2	8	500	0.90	0.24	1.49	0.52	0.13	0.22	0.06	0.37	0.13	0.03
Forklifts	93	47.5	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	4	8	500	8.23	2.84	7.60	2.83	0.73	2.06	0.71	1.90	0.71	0.18
											13.02	**4.43**	**12.67**	**4.68**	**1.20**	**3.25**	**1.11**	**3.17**	**1.17**	**0.30**

Table A-5
Roadway Improvements Construction Emissions
Montecito Ranch

ROADWAY IMPROVEMENTS OPTION A

Phase 1 Surface Improvements
Phase 1A Grading

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
14G Blade (Motor Grader)	156.6	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	2	8	30	4.98	1.35	8.22	2.88	0.74	0.07	0.02	0.12	0.04	0.01
623 Scraper	266.76	66	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	30	4.86	1.32	8.03	2.82	0.73	0.07	0.02	0.12	0.04	0.01
Vibratory Roller	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	30	1.57	0.43	2.60	0.91	0.23	0.02	0.01	0.04	0.01	0.00
2000 Gallon Water Truck	489	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	30	9.34	3.23	8.62	3.21	0.82	0.14	0.05	0.13	0.05	0.01
											20.75	**6.32**	**27.47**	**9.82**	**2.53**	**0.31**	**0.09**	**0.41**	**0.15**	**0.04**

Phase 1B Paving - Curbs & Gutters

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Curb Machine (Concrete Pavers)	130	62	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	30	2.23	0.60	3.68	1.29	0.33	0.03	0.01	0.06	0.02	0.00
Pavers	130	62	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	30	2.23	0.60	3.68	1.29	0.33	0.03	0.01	0.06	0.02	0.00
											4.45	**1.21**	**7.36**	**2.58**	**0.67**	**0.07**	**0.02**	**0.11**	**0.04**	**0.01**

Phase 1C Base/AC Paving

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Paving Machine	91	59	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	120	1.48	0.40	2.45	0.86	0.22	0.09	0.02	0.15	0.05	0.01
Roller	99	57.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	3	8	120	4.72	1.28	7.79	2.73	0.70	0.28	0.08	0.47	0.16	0.04
											6.20	**1.68**	**10.24**	**3.59**	**0.93**	**0.37**	**0.10**	**0.61**	**0.22**	**0.06**

Phase 1D Signage/Striping

Equipment	HP	Load Factor	Emission Factors (lb/bhp-hr) CO	VOC	NOX	SOX	PM10	No of Equip	Hrs Per Day	Days in Service	Emissions, lbs/day CO	VOC	NOX	SOX	PM10	Emission, tons (total) CO	VOC	NOX	SOX	PM10
Skiploader	39	51.5	3.45E-03	9.36E-04	5.70E-03	2.00E-03	5.16E-04	1	8	15	0.55	0.15	0.92	0.32	0.08	0.00	0.00	0.01	0.00	0.00
Crew Truck	200	41	5.82E-03	2.01E-03	5.38E-03	2.00E-03	5.13E-04	1	8	15	3.82	1.32	3.53	1.31	0.34	0.03	0.01	0.03	0.01	0.00
											4.37	**1.47**	**4.44**	**1.63**	**0.42**	**0.03**	**0.01**	**0.03**	**0.01**	**0.00**
											35.78	10.68	49.51	17.62	4.54	0.78	0.22	1.17	0.41	0.11

		Total days
total diesel particulate, tons	**0.11**	195

Table A-6
Architectural Coatings Emissions
Montecito Ranch

Calculation Methodology - Table A11-13-D, SCAQMD CEQA Handbook

Residential

Assumptions

2500 square feet per residence

2.7 square feet of surface area to be coated per square foot of floor space, 3 weeks per phase to paint, 3 p

Residences	Square Fe	Square Feet - Coated Surface Area	Emission Factor for ROC, lbs/1000 square feet	Total Emissions, tons	Daily Emissions, lbs/day
243	2500	1640250	4.62	3.79	48.58
174	2500	1174500	4.62	2.71	34.78

Assuming Electrostatic sprayguns, brush

Table A-7
Construction Diesel Particulate Risk Calculations
Montecito Ranch

Construction Phase	Diesel Particulate Emissions, total tons	Days	lbs/year	grams/second	Impact ug/m3	Risk
Rough Grading	0.85	483	1284.679089	0.018477854	4.60E-02	2.61E-07
Underground Utilities and Surface Improvements, Phase 1	0.45	610	855.46875	0.012304416	3.06E-02	2.19E-07
Underground Utilities and Surface Improvements, Phase 2	0.45	610	739.8648649	0.010641657	2.65E-02	1.90E-07
House Construction	0.30	500	438	0.006299861	1.57E-02	9.20E-08
Roadway Improvements	0.11	195	220	0.003164314	7.87E-03	1.80E-08
Wastewater Reclamation Facility						
						7.80E-07

Maximum Impacts at MEI (based on 1 g/sec emission rate)

UTMN	UTME	All Source	Source 4	Source 5	Source 6
510350	3657500		3.318	4.319	7.289

Construction Worker Estimates and Emission Calculations

Per Table A9-17, SCAQMD CEQA Air Quality Handbook, the number of construction workerrs is estimated by E = FxGxH/1E6 xI or GxH/1E6 x I where F,G,H,I in Tables A9-17A through A9-17C.

Construction Phase	E	F	G	H	I
House Construction	209.4137304	55.7	1042500	9.2	0.392
Streets and Highways	239.7141589		59612000	8.78	0.458
Landscaping	15				

					Assumption				VOCs								PM10				Emissions, lbs/day				
Construction Phase	Vehicle Class	No. of Workers Per Construction Phase	Speed (mph)	VMT (mi/vehicle day)	CO Running Exhaust (g/mi)	CO Start-Up (g/start)[a]	NO_X Running Exhaust (g/mi)	NO_X Start-Up (g/start)[a]	Running Exhaust (g/mi)	Start-Up (g/start)[a]	Hot-Soak (g/trip)	Resting Loss (g/hr)	Running Evaporative (g/mi)	Diurnal Evaporative (g/hr)	SOx Running Exhaust (g/mi)	SOx Start-Up (g/start)[a]	Running Exhaust (g/mi)	Start-Up (g/start)[a]	Tire Wear (g/mi)	Brake Wear (g/mi)	CO	NOx	VOCs	SOx	PM10
Rough Grading - Maximum Workforce	Light-duty truck, catalyst	40	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***25.72***	***2.45***	***1.33***	***0.02***	***0.17***
Phase 1 Underground Utilities	Light-duty truck, catalyst	52	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***33.43***	***3.19***	***1.74***	***0.02***	***0.22***
Phase 1 Surface Improvements	Light-duty truck, catalyst	20	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***12.86***	***1.23***	***0.67***	***0.01***	***0.08***
Phase 1 Landscaping	Light-duty truck, catalyst	15	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***9.64***	***0.92***	***0.50***	***0.01***	***0.06***
Phase 2 Underground Utilities	Light-duty truck, catalyst	52	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***33.43***	***3.19***	***1.74***	***0.02***	***0.22***
Phase 2 Surface Improvements	Light-duty truck, catalyst	20	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***12.86***	***1.23***	***0.67***	***0.01***	***0.08***
Phase 2 Landscaping	Light-duty truck, catalyst	15	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***9.64***	***0.92***	***0.50***	***0.01***	***0.06***
House Construction	Light-duty truck, catalyst	209	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***134.38***	***12.80***	***6.97***	***0.09***	***0.87***
Streets & Highways (onsite and offsite roadway improvements)	Light-duty truck, catalyst	240	27	50	5.192	16.018	0.526	0.742	0.177	1.252	0.129	0.018	0.078	0	0.004	0.002	0.016	0.016	0.008	0.013	***154.31***	***14.70***	***8.01***	***0.11***	***1.00***

Distances Calculated using www.mapquest.com: Construction crew from Escondido/San Marcos (approximately 25 miles one way)
Assume startup after 8 hours
Assume 45 minutes run time total
2008 Emission Factors from EMFAC2002, average temp 55F

Table A-9
Construction Truck Trip Emissions
Montecito Ranch

Construction Phase	Vehicle Class	No. of Trucks Per Construction Phase	Speed (mph)	VMT (mi/vehicle-day)	CO Running Exhaust (g/mi)	NO_X Running Exhaust (g/mi)	VOCs Running Exhaust (g/mi)	SOx Running Exhaust (g/mi)	PM10 Running Exhaust (g/mi)	PM10 Tire Wear (g/mi)	PM10 Brake Wear (g/mi)	Emissions, lbs/day CO	Emissions, lbs/day NOx	Emissions, lbs/day VOCs	Emissions, lbs/day SOx	Emissions, lbs/day PM10
Rough Grading	Heavy-duty truck	25	27	50	2.619	10.555	0.69	0.021	0.287	0.036	0.013	***7.22***	***29.09***	***1.90***	***0.06***	***0.93***
Phase 1 Utilities and Surface Improvements	Heavy-duty truck	50	27	50	2.619	10.555	0.69	0.021	0.287	0.036	0.013	***14.43***	***58.17***	***3.80***	***0.12***	***1.85***
Phase 2 Utilities and Surface Improvements	Heavy-duty truck	50	27	50	2.619	10.555	0.69	0.021	0.287	0.036	0.013	***14.43***	***58.17***	***3.80***	***0.12***	***1.85***
Roadway Improvements	Heavy-duty truck	25	27	50	2.619	10.555	0.69	0.021	0.287	0.036	0.013	***7.22***	***29.09***	***1.90***	***0.06***	***0.93***
House Construction	Heavy-duty truck	50	27	50	2.619	10.555	0.69	0.021	0.287	0.036	0.013	***14.43***	***58.17***	***3.80***	***0.12***	***1.85***

Distances Calculated using www.mapquest.com: Construction crew from Escondido/San Marcos (approximately 25 miles one way)
Emission factors from 2008 EMFAC2002, 27 mph, Heavy Duty Diesel truck (HHD)

Table A-10
Construction Heavy Equipment Emissions
Montecito Ranch Wastewater Reclamation Facility

CECOR Construction Emissions Calculation: Off-Road equipment
YEAR: 2010
If Edit needed see "Equipment" Sheet

Equipment	FUEL	HP	Load Factor	No of Equipment	Hrs Per Day	Days in Service /Year	Days In Service	Emissions CO lbs/day	VOC lbs/day	NOX lbs/day	SOX lbs/day	PM10 lbs/day	Emission, tons (total) CO tons (total)	VOC tons (total)	NOX tons (total)	SOX tons (total)	PM10 tons (total)
Grading and Site Prep																	
657E Scraper	DIESEL	410	66	8	8	25	25	31.52	8.64	83.44	0.19	3.20	0.394	0.108	1.043	0.002	0.040
D-10R Dozer	DIESEL	580	59	1	8	25	25	6.56	1.73	16.70	0.03	0.64	0.082	0.022	0.209	0.000	0.008
D-9L Dozer	DIESEL	410	59	1	8	25	25	3.52	0.97	9.32	0.02	0.36	0.044	0.012	0.117	0.000	0.004
834B Rubber Tired Dozer	DIESEL	467	59	1	8	25	25	4.01	1.10	10.62	0.02	0.41	0.050	0.014	0.133	0.000	0.005
16G Blade	DIESEL	265	57.5	1	8	25	25	2.22	0.61	5.87	0.01	0.23	0.028	0.008	0.073	0.000	0.003
Water Trucks	DIESEL	489	41	1	8	25	25	2.92	0.80	7.73	0.02	0.30	0.036	0.010	0.097	0.000	0.004
								SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
								50.75	13.84	133.69	0.29	5.14	0.63	0.17	1.67	0.00	0.06
Wastewater Treatment Plant Construction																	
Forklifts	DIESEL	93	47.5	4	8	310	310	4.88	1.32	8.06	0.02	0.73	0.757	0.205	1.250	0.002	0.113
Generators	DIESEL	22	74	2	8	310	310	1.52	0.52	1.40	0.00	0.13	0.235	0.081	0.217	0.000	0.021
Welders	DIESEL	35	45	2	8	310	310	1.47	0.51	1.35	0.00	0.13	0.227	0.079	0.210	0.000	0.020
Crane	DIESEL	99	57.5	1	8	310	310	1.57	0.43	2.60	0.00	0.23	0.244	0.066	0.403	0.001	0.036
								SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
								9.44	2.78	13.42	0.03	1.23	1.46	0.43	2.08	0.00	0.19

Table A-11
Construction Worker Emission Calculations
Montecito Ranch Wastewater Reclamation Facility

2010 Construction Worker Estimates and Emission Calculations

Construction Phase	Vehicle Class	No. of Workers Per Construction Phase	Speed (mph)	VMT (mi/vehicle-day)	CO		NO_X		VOCs						SOx		PM10			
					Running Exhaust (g/mi)	Start-Up (g/start)[a]	Running Exhaust (g/mi)	Start-Up (g/start)[a]	Running Exhaust (g/mi)	Start-Up (g/start)[a]	Hot-Soak (g/trip)	Resting Loss (g/hr)	Running Evaporative (g/mi)	Diurnal Evaporative (g/hr)	Running Exhaust (g/mi)	Start-Up (g/start)[a]	Running Exhaust (g/mi)	Start-Up (g/start)[a]	Tire Wear (g/mi)	Brake Wear (g/mi)
All	Light-duty truck, catalyst	70	27	40	3.973	13.554	0.4	0.64	0.101	1.027	0.095	0.018	0.068	0	0.004	0.002	0.015	0.017	0.008	0.013

Construction Phase	Emissions, lbs/day CO	NOx	VOCs	SOx	PM10	Months in 2	Days/mont	Emissions, tons/year CO	NOx	VOCs	SOx	PM10
All	***28.71***	***2.67***	***1.45***	***0.03***	***0.23***	1	25	0.358858	0.033334	0.01812	0.000316	0.002843

Assume startup after 8 hours
Assume 45 minutes run time total
2010 Emission Factors from
EMFAC2002, average temp 55F

Table A-12
Construction Truck Trip Emissions
Montecito Ranch Wastewater Reclamation Facility

							VOCs		PM10			Emissions, lbs/day					Months in :	Days/mont	Emissions, tons/year				
Construction Phase	**Vehicle Class**	**No. of Trucks Per Constructi on Phase**	**Speed (mph)**	**VMT (mi/vehicle- day)**	**CO Running Exhaust (g/mi)**	**NO_X Running Exhaust (g/mi)**	**Running Exhaust (g/mi)**	**SOx Running Exhaust (g/mi)**	**Running Exhaust (g/mi)**	**Tire Wear (g/mi)**	**Brake Wear (g/mi)**	CO	NOx	VOCs	SOx	PM10			CO	NOx	VOCs	SOx	PM10
All	Heavy-duty truck	50	27	40	2.225	8.224	0.582	0.021	0.238	0.036	0.013	***9.81***	***36.26***	***2.57***	***0.09***	***1.27***	11	30	***1.62***	***5.98***	***0.42***	***0.02***	***0.21***

Assuming trucks would travel up to 5 miles one way for aggregate and RCC materials, assuming materials provided from San Marcos/Escondido area.

Emission factors from 2010 EMFAC2002, 27 mph, Heavy Duty Diesel truck (HHD)

Montecito Ranch Residential Construction Risk Evaluation – ISCST3 Output

```
NO ECHO



 BEE-Line ISCST3 "BEEST" Version 8.10

 Input File - C:\Beework\MontecitoRanchResidential.DTA
Output File - C:\Beework\MontecitoRanchResidential.LST
   Met File - C:\MetData\MIR95.ASC



 *** Message Summary For ISC3 Model Setup ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            3 Warning Message(s)
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320    18 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    20 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    22 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS

***********************************
*** SETUP Finishes Successfully ***
***********************************
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***        01/30/07
                                   ***
***        15:32:07
**MODELOPTs:
PAGE   1
CONC                        RURAL  ELEV          DFAULT

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes:     3 Source(s);      4 Source Group(s); and     111 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and
Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =    0.000     ;    Rot.
Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission
Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =     1.2 MB of RAM.

**Input Runstream File:          C:\Beework\MontecitoRanchResidential.DTA
**Output Print File:             C:\Beework\MontecitoRanchResidential.LST
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***         01/30/07
                                   ***
***         15:32:07
**MODELOPTs:
PAGE   2
CONC                        RURAL  ELEV          DFAULT


                                                 *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK
STACK    BUILDING EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL.
DIAMETER   EXISTS   SCALAR VARY
     ID       CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)
(METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - -

  POINT4        0   0.10000E+01  509570.1 3658177.0   481.2     3.00   422.04   100.00
0.15      NO
  POINT5        0   0.10000E+01  509826.9 3658282.0   466.5     3.00   422.04   100.00
0.15      NO
  POINT6        0   0.10000E+01  510169.3 3658105.0   466.2     3.00   422.04   100.00
0.15      NO
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	POINT4 , POINT5 , POINT6 ,
POINT4	POINT4 ,
POINT5	POINT5 ,
POINT6	POINT6 ,

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

509150.0, 509250.0, 509350.0, 509450.0, 509550.0,

*** Y-COORDINATES OF GRID ***
(METERS)

3656800.0, 3656900.0, 3657000.0,

CONC   RURAL ELEV   DFAULT

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	444.10	445.90	452.60	449.90	449.90
3656900.00	440.60	442.60	443.30	444.80	445.30
3656800.00	439.70	442.00	444.30	445.40	449.00

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

509650.0, 509750.0, 509850.0, 509950.0, 510050.0, 510150.0, 510250.0,
510350.0, 510450.0, 510550.0,
510650.0, 510750.0,

*** Y-COORDINATES OF GRID ***
(METERS)

3656800.0, 3656900.0, 3657000.0, 3657100.0, 3657200.0, 3657300.0, 3657400.0,
3657500.0,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00	510450.00
3657500.00	523.20	526.80	519.70	522.30	524.60	516.60	509.50	504.00	500.30
3657400.00	533.70	535.20	524.00	504.90	511.60	514.30	513.90	520.40	513.30
3657300.00	521.00	506.60	506.00	496.90	489.40	494.10	498.30	503.00	499.90
3657200.00	479.80	473.50	472.90	472.90	471.10	475.40	478.30	481.40	482.40
3657100.00	459.60	461.90	461.00	459.90	463.40	467.70	469.50	475.30	480.40
3657000.00	449.90	449.60	449.90	457.90	469.60	474.90	480.40	487.90	499.00
3656900.00	448.20	451.20	463.30	472.50	482.60	493.90	499.10	505.60	507.70
3656800.00	449.70	453.20	460.00	460.60	470.10	485.30	499.90	495.30	496.30

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 510550.00	510650.00	510750.00
3657500.00	507.30	514.00	510.60
3657400.00	516.70	515.20	509.40
3657300.00	501.10	506.00	505.10
3657200.00	488.00	495.00	503.60
3657100.00	498.70	509.30	511.70
3657000.00	512.70	521.70	517.90
3656900.00	508.00	511.00	501.10
3656800.00	504.70	504.70	506.90

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

```
                   B          .00000E+00     .00000E+00     .00000E+00     .00000E+00
.00000E+00     .00000E+00
                   C          .00000E+00     .00000E+00     .00000E+00     .00000E+00
.00000E+00     .00000E+00
                   D          .00000E+00     .00000E+00     .00000E+00     .00000E+00
.00000E+00     .00000E+00
                   E          .20000E-01     .20000E-01     .20000E-01     .20000E-01
.20000E-01     .20000E-01
                   F          .35000E-01     .35000E-01     .35000E-01     .35000E-01
.35000E-01     .35000E-01
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***        01/30/07
                                   ***
***        15:32:07
**MODELOPTs:
PAGE  10
CONC                        RURAL  ELEV          DFAULT


                     *** THE FIRST  24 HOURS OF METEOROLOGICAL DATA ***

     FILE:   C:\MetData\MIR95.ASC
     FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
     SURFACE STATION NO.:  93107                  UPPER AIR STATION NO.:   3190
                    NAME: MIRAMAR_NAS,CA                            NAME: UNKNOWN
                    YEAR:   1995                                    YEAR:   1995

             FLOW   SPEED  TEMP  STAB  MIXING HEIGHT (M)  USTAR  M-O LENGTH   Z-0 IPCODE
PRATE
YR MN DY HR VECTOR  (M/S)   (K)  CLASS   RURAL   URBAN    (M/S)     (M)       (M)
(mm/HR)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

95 01 01 01  181.0   1.00  282.6   6    1255.7   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 02  268.0   1.03  282.0   6    1267.5   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 03  244.0   1.03  282.6   6    1279.3   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 04  293.0   1.54  282.6   6    1291.1   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 05  293.0   2.06  282.6   5    1302.9   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 06  292.0   0.00  282.6   6    1314.7   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 07  285.0   1.03  280.4   5      13.8   251.5    0.0000       0.0  0.0000   0
0.00
95 01 01 08  253.0   1.00  283.2   4     213.1   416.8    0.0000       0.0  0.0000   0
0.00
95 01 01 09  247.0   0.00  288.7   3     412.4   582.2    0.0000       0.0  0.0000   0
0.00
95 01 01 10  151.0   2.06  288.7   3     611.8   747.6    0.0000       0.0  0.0000   0
0.00
95 01 01 11  144.0   2.06  289.3   3     811.1   912.9    0.0000       0.0  0.0000   0
0.00
95 01 01 12  136.0   4.12  290.9   3    1010.4  1078.3    0.0000       0.0  0.0000   0
0.00
95 01 01 13  143.0   3.60  291.5   3    1209.7  1243.6    0.0000       0.0  0.0000   0
0.00
95 01 01 14  129.0   4.12  289.3   3    1409.0  1409.0    0.0000       0.0  0.0000   0
0.00
95 01 01 15  132.0   4.12  290.4   3    1409.0  1409.0    0.0000       0.0  0.0000   0
0.00
95 01 01 16  144.0   3.09  289.3   4    1409.0  1409.0    0.0000       0.0  0.0000   0
0.00
95 01 01 17  161.0   2.06  288.2   5    1409.5  1371.2    0.0000       0.0  0.0000   0
0.00
95 01 01 18   57.0   1.03  284.8   6    1412.2  1182.2    0.0000       0.0  0.0000   0
0.00
95 01 01 19   64.0   0.00  283.7   7    1414.9   993.1    0.0000       0.0  0.0000   0
0.00
95 01 01 20   57.0   0.00  281.5   7    1417.6   804.1    0.0000       0.0  0.0000   0
0.00
95 01 01 21  280.0   1.03  282.0   7    1420.3   615.1    0.0000       0.0  0.0000   0
0.00
95 01 01 22  272.0   1.03  280.9   7    1423.0   426.1    0.0000       0.0  0.0000   0
0.00
95 01 01 23  270.0   1.54  280.9   7    1425.7   237.0    0.0000       0.0  0.0000   0
0.00
```

```
95 01 01 24  270.0   1.54  282.0   7    1428.4    48.0    0.0000       0.0  0.0000   0
0.00


*** NOTES:  STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
            FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
```

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   POINT4 , POINT5 , POINT6 ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	0.18730	0.20816	0.32188	0.38931	0.50888
3656900.00	0.16547	0.19140	0.24114	0.33327	0.42791
3656800.00	0.16495	0.19806	0.26523	0.35030	0.49775

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***        01/30/07
                                   ***
***        15:32:07
**MODELOPTs:
PAGE  12
CONC                          RURAL  ELEV          DFAULT

                               *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):      POINT4  , POINT5  , POINT6  ,

                                    *** NETWORK ID: GRID2    ;  NETWORK TYPE: GRIDCART ***

                                         ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                               X-COORD (METERS)
   (METERS) |     509650.00    509750.00    509850.00    509950.00    510050.00
510150.00    510250.00    510350.00    510450.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 3657500.00 |       8.18396     10.59644     12.07359     12.44980     13.16239
14.58997     14.86188     14.92675     14.27691
 3657400.00 |       7.30348      8.71079     10.36029     11.13107     11.86353
12.68053     13.07083     12.31958     12.20215
 3657300.00 |       6.66362      7.61281      8.84706      9.63364      9.76965
11.04015     11.68881     11.12890     10.90765
 3657200.00 |       3.01723      3.07719      3.55087      4.15756      4.69058
6.41597      7.53253      8.16000      8.47581
 3657100.00 |       0.93672      1.34920      1.49515      1.59694      2.33867
3.46802      4.72272      6.63007      7.24442
 3657000.00 |       0.60661      0.74915      0.86665      1.38503      4.13731
5.49154      6.75136      8.54230      8.21551
 3656900.00 |       0.56850      0.79944      1.54610      3.53909      5.51200
7.82031      7.91059      7.73341      7.52400
 3656800.00 |       0.60784      0.86313      1.29283      1.47681      3.68478
6.79777      7.08554      7.29258      7.45483
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***        01/30/07
                                   ***
***        15:32:07
**MODELOPTs:
PAGE  13
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):      POINT4  , POINT5  , POINT6  ,

                                  *** NETWORK ID: GRID2    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                              X-COORD (METERS)
   (METERS) |     510550.00    510650.00    510750.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 3657500.00 |      12.35596     10.11512      9.11864
 3657400.00 |      10.75574      9.47917      8.20028
 3657300.00 |       9.97119      9.20000      8.12004
 3657200.00 |       9.73196      8.46175      7.41276
 3657100.00 |       8.41582      7.82312      6.87539
 3657000.00 |       7.62120      6.77302      6.28687
 3656900.00 |       6.90161      6.71683      6.20280
 3656800.00 |       6.63579      6.48010      6.00795
```

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch RESIDENTIAL Construction HRA
*** 01/30/07
***
*** 15:32:07
**MODELOPTs:
PAGE 14
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: POINT4 ***
INCLUDING SOURCE(S): POINT4 ,

*** NETWORK ID: GRID1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	0.05442	0.06296	0.10532	0.16134	0.23711
3656900.00	0.04899	0.05831	0.08136	0.14124	0.20152
3656800.00	0.04823	0.05928	0.08930	0.14961	0.22906

CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT4   ***
INCLUDING SOURCE(S):   POINT4 ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00	510450.00
3657500.00	5.66956	6.63807	6.56791	5.77897	4.86402	3.98408	3.47419	3.31845	3.16481
3657400.00	4.92354	5.25780	5.68723	5.52276	4.54612	3.70884	3.34060	2.75946	2.52345
3657300.00	4.21927	4.35091	4.63905	4.33347	3.30915	3.28611	3.03297	2.65165	2.44772
3657200.00	1.16340	0.83249	0.87838	1.09507	1.11443	1.39222	1.32115	1.22806	1.24676
3657100.00	0.38811	0.43989	0.44913	0.52123	0.74074	0.92221	0.98748	1.01747	1.04878
3657000.00	0.25912	0.26426	0.27931	0.43117	0.88562	1.16169	1.50084	2.18881	2.17902
3656900.00	0.24122	0.27338	0.45807	0.77752	1.47322	2.75712	2.70605	2.58620	2.18140
3656800.00	0.25175	0.28828	0.38472	0.41736	0.73521	2.35863	2.55036	2.32515	2.16903

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch RESIDENTIAL Construction HRA
***   01/30/07
***
***   15:32:07
**MODELOPTs:
PAGE 16
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT4   ***
INCLUDING SOURCE(S):   POINT4 ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 510550.00	510650.00	510750.00
3657500.00	2.98011	2.64312	2.54170
3657400.00	2.47735	2.39751	2.28709
3657300.00	2.28906	2.30099	2.22617
3657200.00	1.94408	1.94068	1.88989
3657100.00	1.88986	1.83872	1.60660
3657000.00	1.92481	1.51422	1.48342
3656900.00	1.83279	1.72832	1.50889
3656800.00	1.90003	1.70534	1.51504

CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT5   ***
INCLUDING SOURCE(S):   POINT5 ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	0.09092	0.09535	0.12796	0.12303	0.15074
3656900.00	0.07815	0.07985	0.08771	0.09994	0.12846
3656800.00	0.07301	0.07679	0.09197	0.10447	0.15757

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch RESIDENTIAL Construction HRA
***   01/30/07
***
***   15:32:07
**MODELOPTs:
PAGE 18
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT5   ***
INCLUDING SOURCE(S):   POINT5 ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00	510450.00
3657500.00	1.77950	2.92293	4.17225	4.99278	5.26162	5.32976	4.85023	4.31939	3.46051
3657400.00	1.68994	2.59931	3.51718	4.22785	4.59469	4.71187	4.36135	3.69347	3.52976
3657300.00	1.72662	2.35111	3.13261	3.67754	4.07465	4.13867	4.03789	3.65799	3.17830
3657200.00	1.27525	1.65686	2.03023	2.23133	2.30326	2.74709	3.15614	3.35873	3.14307
3657100.00	0.34933	0.69122	0.81076	0.79989	1.01068	1.33009	1.63060	2.86666	2.81032
3657000.00	0.22686	0.36775	0.45631	0.69498	1.97992	2.36465	2.61758	3.17125	2.73355
3656900.00	0.22115	0.39650	0.83401	1.86560	2.40260	2.66831	2.54107	2.43351	2.38427
3656800.00	0.24702	0.43201	0.68571	0.73732	1.70388	2.32345	2.26912	2.36003	2.56414

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT5   ***
INCLUDING SOURCE(S):   POINT5 ,
*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***
** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 510550.00	510650.00	510750.00
3657500.00	2.89684	2.44944	2.41825
3657400.00	2.71029	2.36331	2.07675
3657300.00	2.65816	2.41851	2.04789
3657200.00	2.92007	2.30500	1.99675
3657100.00	2.64230	2.32976	1.93925
3657000.00	2.32049	2.03462	1.88679
3656900.00	2.18061	2.06193	1.83520
3656800.00	2.15681	1.99753	1.81812

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch RESIDENTIAL Construction HRA
***   01/30/07

***

***   15:32:07
**MODELOPTs:
PAGE 20
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT6   ***
INCLUDING SOURCE(S):   POINT6 ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3
**

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	0.04196	0.04984	0.08860	0.10494	0.12103
3656900.00	0.03834	0.05325	0.07207	0.09208	0.09792
3656800.00	0.04371	0.06199	0.08396	0.09623	0.11112

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch RESIDENTIAL Construction HRA
***   01/30/07
***
***   15:32:07
**MODELOPTs:
PAGE 21
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT6   ***
INCLUDING SOURCE(S):   POINT6 ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00	510450.00
3657500.00	0.73490	1.03545	1.33344	1.67806	3.03671	5.27614	6.53745	7.28897	7.65157
3657400.00	0.69000	0.85367	1.15589	1.38046	2.72270	4.25981	5.36882	5.86665	6.14892
3657300.00	0.71775	0.91080	1.07539	1.62263	2.38588	3.61539	4.61797	4.81927	5.28160
3657200.00	0.57859	0.58784	0.64227	0.83116	1.27291	2.27668	3.05526	3.57324	4.08601
3657100.00	0.19928	0.21810	0.23526	0.27583	0.58726	1.21572	2.10464	2.74595	3.38534
3657000.00	0.12062	0.11714	0.13103	0.25887	1.27177	1.96521	2.63294	3.18224	3.30295
3656900.00	0.10613	0.12956	0.25403	0.89597	1.63618	2.39488	2.66347	2.71369	2.95833
3656800.00	0.10907	0.14285	0.22240	0.32213	1.24571	2.11568	2.26605	2.60741	2.72167

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***        01/30/07
                                   ***
***        15:32:07
**MODELOPTs:
PAGE  22
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT6   ***
                                 INCLUDING SOURCE(S):      POINT6  ,

                                  *** NETWORK ID: GRID2    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                               X-COORD (METERS)
   (METERS) |     510550.00    510650.00    510750.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 3657500.00 |       6.47898      5.02258      4.15873
 3657400.00 |       5.56808      4.71837      3.83645
 3657300.00 |       5.02398      4.48049      3.84599
 3657200.00 |       4.86780      4.21607      3.52609
 3657100.00 |       3.88367      3.65466      3.32950
 3657000.00 |       3.37590      3.22420      2.91663
 3656900.00 |       2.88821      2.92659      2.85871
 3656800.00 |       2.57894      2.77722      2.67479
```

```
CONC                        RURAL  ELEV          DFAULT

                                            *** THE SUMMARY OF MAXIMUM ANNUAL (   1 YRS)
RESULTS ***


                                        ** CONC OF OTHER    IN MICROGRAMS/M**3
**


NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -

ALL      1ST HIGHEST VALUE IS      14.92675 AT (  510350.00,  3657500.00,    504.00,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS      14.86188 AT (  510250.00,  3657500.00,    509.50,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS      14.58997 AT (  510150.00,  3657500.00,    516.60,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS      14.27691 AT (  510450.00,  3657500.00,    500.30,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS      13.16239 AT (  510050.00,  3657500.00,    524.60,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS      13.07083 AT (  510250.00,  3657400.00,    513.90,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS      12.68053 AT (  510150.00,  3657400.00,    514.30,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS      12.44980 AT (  509950.00,  3657500.00,    522.30,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS      12.35596 AT (  510550.00,  3657500.00,    507.30,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS      12.31958 AT (  510350.00,  3657400.00,    520.40,
0.00)  GC   GRID2

POINT4   1ST HIGHEST VALUE IS       6.63807 AT (  509750.00,  3657500.00,    526.80,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS       6.56791 AT (  509850.00,  3657500.00,    519.70,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       5.77897 AT (  509950.00,  3657500.00,    522.30,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS       5.68723 AT (  509850.00,  3657400.00,    524.00,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS       5.66956 AT (  509650.00,  3657500.00,    523.20,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS       5.52276 AT (  509950.00,  3657400.00,    504.90,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       5.25780 AT (  509750.00,  3657400.00,    535.20,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       4.92354 AT (  509650.00,  3657400.00,    533.70,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       4.86402 AT (  510050.00,  3657500.00,    524.60,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       4.63905 AT (  509850.00,  3657300.00,    506.00,
0.00)  GC   GRID2

POINT5   1ST HIGHEST VALUE IS       5.32976 AT (  510150.00,  3657500.00,    516.60,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS       5.26162 AT (  510050.00,  3657500.00,    524.60,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       4.99278 AT (  509950.00,  3657500.00,    522.30,
0.00)  GC   GRID2
```

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         4TH HIGHEST VALUE IS       4.85023 AT (  510250.00,  3657500.00,     509.50,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS       4.71187 AT (  510150.00,  3657400.00,     514.30,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS       4.59469 AT (  510050.00,  3657400.00,     511.60,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       4.36135 AT (  510250.00,  3657400.00,     513.90,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       4.31939 AT (  510350.00,  3657500.00,     504.00,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       4.22785 AT (  509950.00,  3657400.00,     504.90,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       4.17225 AT (  509850.00,  3657500.00,     519.70,
0.00)  GC   GRID2
```

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 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch RESIDENTIAL Construction HRA
***        01/30/07
                                   ***
***        15:32:07
**MODELOPTs:
PAGE  24
CONC                        RURAL  ELEV          DFAULT

                                           *** THE SUMMARY OF MAXIMUM ANNUAL (   1 YRS)
RESULTS ***


                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**


NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -

POINT6   1ST HIGHEST VALUE IS       7.65157 AT (  510450.00,  3657500.00,    500.30,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS       7.28897 AT (  510350.00,  3657500.00,    504.00,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       6.53745 AT (  510250.00,  3657500.00,    509.50,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS       6.47898 AT (  510550.00,  3657500.00,    507.30,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS       6.14892 AT (  510450.00,  3657400.00,    513.30,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS       5.86665 AT (  510350.00,  3657400.00,    520.40,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       5.56808 AT (  510550.00,  3657400.00,    516.70,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       5.36882 AT (  510250.00,  3657400.00,    513.90,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       5.28160 AT (  510450.00,  3657300.00,    499.90,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       5.27614 AT (  510150.00,  3657500.00,    516.60,
0.00)  GC   GRID2

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY
```

```
*** Message Summary : ISCST3 Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            3 Warning Message(s)
A Total of         1526 Informational Message(s)

A Total of         1526 Calm Hours Identified


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320    18 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    20 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    22 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

```
NO ECHO



 BEE-Line ISCST3 "BEEST" Version 8.10

 Input File - C:\Beework\MontecitoRanch.DTA
Output File - C:\Beework\MontecitoRanch.LST
   Met File - C:\MetData\MIR95.ASC



 *** Message Summary For ISC3 Model Setup ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            6 Warning Message(s)
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320    18 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    20 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    22 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    24 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    26 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    28 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS

***********************************
*** SETUP Finishes Successfully ***
***********************************
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE   1
CONC                        RURAL  ELEV          DFAULT

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.

           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes:     6 Source(s);      7 Source Group(s); and      79 Receptor(s)


**The Model Assumes A Pollutant Type of:  OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and
Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =    0.000     ;    Rot.
Angle =     0.0
                 Emission Units = GRAMS/SEC                               ;  Emission
Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =     1.2 MB of RAM.

**Input Runstream File:          C:\Beework\MontecitoRanch.DTA
**Output Print File:             C:\Beework\MontecitoRanch.LST
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
POINT	0	0.10000E+01	509120.8	3657314.0	446.3	3.00	422.04	100.00	0.15	NO	
POINT2	0	0.10000E+01	508925.7	3657184.5	446.3	3.00	422.04	100.00	0.15	NO	
POINT3	0	0.10000E+01	509349.0	3657449.5	452.5	3.00	422.04	100.00	0.15	NO	
POINT4	0	0.10000E+01	509570.1	3658177.0	481.2	3.00	422.04	100.00	0.15	NO	
POINT5	0	0.10000E+01	509826.9	3658282.0	466.5	3.00	422.04	100.00	0.15	NO	
POINT6	0	0.10000E+01	510169.3	3658105.0	466.2	3.00	422.04	100.00	0.15	NO	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	POINT , POINT2 , POINT3 , POINT4 , POINT5 , POINT6 ,
POINT	POINT ,
POINT2	POINT2 ,
POINT3	POINT3 ,
POINT4	POINT4 ,
POINT5	POINT5 ,
POINT6	POINT6 ,

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE   4
CONC                          RURAL  ELEV          DFAULT
```

```
                                       *** GRIDDED RECEPTOR NETWORK SUMMARY ***

                                 *** NETWORK ID: GRID1    ;  NETWORK TYPE: GRIDCART ***

                                         *** X-COORDINATES OF GRID ***
                                                   (METERS)

      509150.0,  509250.0,  509350.0,  509450.0,  509550.0,

                                         *** Y-COORDINATES OF GRID ***
                                                   (METERS)

     3656800.0, 3656900.0, 3657000.0,
```

CONC   RURAL ELEV   DFAULT

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	444.10	445.90	452.60	449.90	449.90
3656900.00	440.60	442.60	443.30	444.80	445.30
3656800.00	439.70	442.00	444.30	445.40	449.00

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

509650.0, 509750.0, 509850.0, 509950.0, 510050.0, 510150.0, 510250.0,
510350.0,

*** Y-COORDINATES OF GRID ***
(METERS)

3656800.0, 3656900.0, 3657000.0, 3657100.0, 3657200.0, 3657300.0, 3657400.0,
3657500.0,

CONC   RURAL ELEV   DFAULT

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00
3657500.00	523.20	526.80	519.70	522.30	524.60	516.60	509.50	504.00
3657400.00	533.70	535.20	524.00	504.90	511.60	514.30	513.90	520.40
3657300.00	521.00	506.60	506.00	496.90	489.40	494.10	498.30	503.00
3657200.00	479.80	473.50	472.90	472.90	471.10	475.40	478.30	481.40
3657100.00	459.60	461.90	461.00	459.90	463.40	467.70	469.50	475.30
3657000.00	449.90	449.60	449.90	457.90	469.60	474.90	480.40	487.90
3656900.00	448.20	451.20	463.30	472.50	482.60	493.90	499.10	505.60
3656800.00	449.70	453.20	460.00	460.60	470.10	485.30	499.90	495.30

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

```
                   B          .00000E+00     .00000E+00     .00000E+00     .00000E+00
.00000E+00     .00000E+00
                   C          .00000E+00     .00000E+00     .00000E+00     .00000E+00
.00000E+00     .00000E+00
                   D          .00000E+00     .00000E+00     .00000E+00     .00000E+00
.00000E+00     .00000E+00
                   E          .20000E-01     .20000E-01     .20000E-01     .20000E-01
.20000E-01     .20000E-01
                   F          .35000E-01     .35000E-01     .35000E-01     .35000E-01
.35000E-01     .35000E-01
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE   9
CONC                        RURAL  ELEV          DFAULT


                     *** THE FIRST  24 HOURS OF METEOROLOGICAL DATA ***

     FILE:   C:\MetData\MIR95.ASC
     FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
     SURFACE STATION NO.:  93107                 UPPER AIR STATION NO.:   3190
                    NAME: MIRAMAR_NAS,CA                           NAME: UNKNOWN
                    YEAR:   1995                                   YEAR:   1995

             FLOW   SPEED  TEMP  STAB  MIXING HEIGHT (M)  USTAR  M-O LENGTH   Z-0 IPCODE
PRATE
YR MN DY HR VECTOR  (M/S)   (K)  CLASS   RURAL   URBAN    (M/S)     (M)       (M)
(mm/HR)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

95 01 01 01  181.0   1.00  282.6   6    1255.7   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 02  268.0   1.03  282.0   6    1267.5   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 03  244.0   1.03  282.6   6    1279.3   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 04  293.0   1.54  282.6   6    1291.1   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 05  293.0   2.06  282.6   5    1302.9   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 06  292.0   0.00  282.6   6    1314.7   240.0    0.0000       0.0  0.0000   0
0.00
95 01 01 07  285.0   1.03  280.4   5      13.8   251.5    0.0000       0.0  0.0000   0
0.00
95 01 01 08  253.0   1.00  283.2   4     213.1   416.8    0.0000       0.0  0.0000   0
0.00
95 01 01 09  247.0   0.00  288.7   3     412.4   582.2    0.0000       0.0  0.0000   0
0.00
95 01 01 10  151.0   2.06  288.7   3     611.8   747.6    0.0000       0.0  0.0000   0
0.00
95 01 01 11  144.0   2.06  289.3   3     811.1   912.9    0.0000       0.0  0.0000   0
0.00
95 01 01 12  136.0   4.12  290.9   3    1010.4  1078.3    0.0000       0.0  0.0000   0
0.00
95 01 01 13  143.0   3.60  291.5   3    1209.7  1243.6    0.0000       0.0  0.0000   0
0.00
95 01 01 14  129.0   4.12  289.3   3    1409.0  1409.0    0.0000       0.0  0.0000   0
0.00
95 01 01 15  132.0   4.12  290.4   3    1409.0  1409.0    0.0000       0.0  0.0000   0
0.00
95 01 01 16  144.0   3.09  289.3   4    1409.0  1409.0    0.0000       0.0  0.0000   0
0.00
95 01 01 17  161.0   2.06  288.2   5    1409.5  1371.2    0.0000       0.0  0.0000   0
0.00
95 01 01 18   57.0   1.03  284.8   6    1412.2  1182.2    0.0000       0.0  0.0000   0
0.00
95 01 01 19   64.0   0.00  283.7   7    1414.9   993.1    0.0000       0.0  0.0000   0
0.00
95 01 01 20   57.0   0.00  281.5   7    1417.6   804.1    0.0000       0.0  0.0000   0
0.00
95 01 01 21  280.0   1.03  282.0   7    1420.3   615.1    0.0000       0.0  0.0000   0
0.00
95 01 01 22  272.0   1.03  280.9   7    1423.0   426.1    0.0000       0.0  0.0000   0
0.00
95 01 01 23  270.0   1.54  280.9   7    1425.7   237.0    0.0000       0.0  0.0000   0
0.00
```

```
95 01 01 24  270.0   1.54  282.0   7    1428.4    48.0    0.0000       0.0  0.0000   0
0.00


*** NOTES:  STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
            FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE  10
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):      POINT   , POINT2  , POINT3  ,
POINT4  , POINT5  , POINT6  ,

                                  *** NETWORK ID: GRID1    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                              X-COORD (METERS)
   (METERS) |     509150.00    509250.00    509350.00    509450.00    509550.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 3657000.00 |       8.43717     10.41628     16.48120     13.67478     13.59924
 3656900.00 |       4.72233      6.32010      8.05023      8.47094      8.26750
 3656800.00 |       3.53088      4.69397      6.54111      7.46213      8.52236
```

*** ISCST3 - VERSION 00101 *** *** Montecito Ranch WTF Construction HRA *** 01/30/07
***
*** 15:09:43
**MODELOPTs:
PAGE 11
CONC RURAL ELEV DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): POINT , POINT2 , POINT3 , POINT4 , POINT5 , POINT6 ,

*** NETWORK ID: GRID2 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00
3657500.00	23.96259	23.21804	22.01450	20.57188	19.94438	20.39277	19.98023	19.49195
3657400.00	28.26818	24.57038	22.33327	21.04605	20.06979	19.50037	18.95515	17.43074
3657300.00	33.48631	26.28306	22.63827	20.66987	18.89017	18.45405	18.06292	16.63160
3657200.00	26.97891	22.33956	19.15725	16.56132	14.70272	14.70020	14.59188	14.21488
3657100.00	17.67039	16.80042	14.74053	12.72165	12.36236	12.20124	12.24037	13.35587
3657000.00	12.46159	11.14105	10.02323	12.06563	14.50769	14.73423	14.46832	15.14762
3656900.00	9.06483	11.17092	13.60292	14.66735	15.78775	16.58030	15.42122	14.28030
3656800.00	10.79434	11.22095	12.48936	11.47356	13.63100	15.20055	14.67748	13.96888

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch WTF Construction HRA
***   01/30/07
***
***   15:09:43
**MODELOPTs:
PAGE 12
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT   ***

INCLUDING SOURCE(S):   POINT   ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	1.16394	2.86367	7.11612	6.48113	6.66519
3656900.00	0.87124	1.55595	2.69647	3.05513	3.15032
3656800.00	0.83584	1.24645	2.26147	2.72743	2.81497

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch WTF Construction HRA
***   01/30/07
***
***   15:09:43
**MODELOPTs:
PAGE 13
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT   ***
INCLUDING SOURCE(S):   POINT   ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00
3657500.00	3.76349	2.72832	2.25144	1.92862	1.77852	1.68546	1.44785	1.33692
3657400.00	4.73899	3.80363	3.17339	2.84396	2.33353	2.09513	1.76314	1.61268
3657300.00	6.08304	4.76510	3.92772	3.25010	2.75167	2.33116	1.93834	1.69299
3657200.00	6.85217	4.97905	4.30142	3.55004	3.04995	2.48400	2.22915	1.88065
3657100.00	6.85887	5.56949	4.06746	3.25675	2.98012	2.52221	2.17083	2.01154
3657000.00	5.78617	4.98104	4.04542	3.66017	3.33419	2.84936	2.24348	1.90859
3656900.00	3.47320	4.63326	4.84898	4.19400	3.61190	2.92896	2.46484	2.03437
3656800.00	3.81784	3.95589	4.38430	3.90278	3.73249	2.95113	2.54995	2.15334

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch WTF Construction HRA
***   01/30/07
***
***   15:09:43
**MODELOPTs:
PAGE 14
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT2   ***
INCLUDING SOURCE(S):   POINT2 ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3
**

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	6.91242	7.07392	7.74620	5.40492	4.12793
3656900.00	3.53500	4.31111	4.47624	4.18868	3.37761
3656800.00	2.37325	2.95200	3.30015	3.48576	3.81424

*** ISCST3 - VERSION 00101 *** *** Montecito Ranch WTF Construction HRA ***
01/30/07
***
*** 15:09:43
**MODELOPTs:
PAGE 15
CONC RURAL ELEV DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: POINT2 ***
INCLUDING SOURCE(S): POINT2 ,

*** NETWORK ID: GRID2 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00
3657500.00	2.59318	2.20607	1.74053	1.43874	1.16819	1.03941	0.90587	0.86799
3657400.00	2.20796	1.83840	1.69952	1.58255	1.44594	1.30124	1.20881	1.04688
3657300.00	3.02521	2.60031	2.29005	1.93081	1.82647	1.56432	1.44557	1.24532
3657200.00	3.98095	3.30417	2.80811	2.43360	2.19096	1.82035	1.63107	1.42195
3657100.00	3.73452	3.33442	2.80727	2.39432	2.18239	1.99784	1.73066	1.52987
3657000.00	3.32218	2.75431	2.41558	2.43389	2.22282	1.99898	1.76225	1.46947
3656900.00	2.91040	3.38095	3.23632	2.66637	2.26844	1.95647	1.67983	1.45463
3656800.00	4.38376	3.85417	3.38424	2.86549	2.72881	2.05178	1.80669	1.60671

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch WTF Construction HRA
***   01/30/07
***
***   15:09:43
**MODELOPTs:
PAGE 16
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT3   ***
INCLUDING SOURCE(S):   POINT3 ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3
**

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	0.17353	0.27055	1.29711	1.39947	2.29720
3656900.00	0.15062	0.26167	0.63639	0.89388	1.31169
3656800.00	0.15685	0.29746	0.71425	0.89867	1.39540

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE  17
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT3   ***
                                 INCLUDING SOURCE(S):      POINT3  ,

                                  *** NETWORK ID: GRID2    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                                X-COORD (METERS)
   (METERS) |     509650.00    509750.00    509850.00    509950.00    510050.00
510150.00    510250.00    510350.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 3657500.00 |       9.42204      7.68721      5.94890      4.75475      3.83527
3.07799      2.76464      2.36027
 3657400.00 |      14.01780     10.21763      7.10002      5.48841      4.42681
3.42348      2.91238      2.45158
 3657300.00 |      17.71427     11.30486      7.57356      5.85529      4.54243
3.51843      2.99019      2.56446
 3657200.00 |      13.12851     10.97919      8.49690      6.42012      4.77127
3.97990      3.19909      2.75232
 3657100.00 |       6.14034      6.54732      6.37070      5.47370      4.86128
4.21322      3.61620      3.18433
 3657000.00 |       2.74668      2.65653      2.69561      4.58653      4.81340
4.39436      3.71126      3.22727
 3656900.00 |       2.11275      2.35736      3.97158      4.26792      4.39543
3.87451      3.36598      3.05796
 3656800.00 |       1.98491      2.54782      3.42799      3.22851      3.48495
3.39988      3.23533      2.91621
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE  18
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT4   ***
                                 INCLUDING SOURCE(S):      POINT4  ,

                                  *** NETWORK ID: GRID1    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                              X-COORD (METERS)
   (METERS) |     509150.00    509250.00    509350.00    509450.00    509550.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 3657000.00 |       0.05442      0.06296      0.10532      0.16134      0.23711
 3656900.00 |       0.04899      0.05831      0.08136      0.14124      0.20152
 3656800.00 |       0.04823      0.05928      0.08930      0.14961      0.22906
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE  19
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT4   ***
                                 INCLUDING SOURCE(S):      POINT4  ,

                                  *** NETWORK ID: GRID2    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                               X-COORD (METERS)
   (METERS) |     509650.00    509750.00    509850.00    509950.00    510050.00
510150.00    510250.00    510350.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 3657500.00 |       5.66956      6.63807      6.56791      5.77897      4.86402
3.98408      3.47419      3.31845
 3657400.00 |       4.92354      5.25780      5.68723      5.52276      4.54612
3.70884      3.34060      2.75946
 3657300.00 |       4.21927      4.35091      4.63905      4.33347      3.30915
3.28611      3.03297      2.65165
 3657200.00 |       1.16340      0.83249      0.87838      1.09507      1.11443
1.39222      1.32115      1.22806
 3657100.00 |       0.38811      0.43989      0.44913      0.52123      0.74074
0.92221      0.98748      1.01747
 3657000.00 |       0.25912      0.26426      0.27931      0.43117      0.88562
1.16169      1.50084      2.18881
 3656900.00 |       0.24122      0.27338      0.45807      0.77752      1.47322
2.75712      2.70605      2.58620
 3656800.00 |       0.25175      0.28828      0.38472      0.41736      0.73521
2.35863      2.55036      2.32515
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE  20
CONC                        RURAL  ELEV          DFAULT

                             *** THE ANNUAL (   1 YRS) AVERAGE CONCENTRATION   VALUES FOR
SOURCE GROUP: POINT5   ***
                                 INCLUDING SOURCE(S):      POINT5  ,

                                  *** NETWORK ID: GRID1    ;  NETWORK TYPE: GRIDCART ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**

   Y-COORD  |                                              X-COORD (METERS)
   (METERS) |     509150.00    509250.00    509350.00    509450.00    509550.00
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 3657000.00 |       0.09092      0.09535      0.12796      0.12303      0.15074
 3656900.00 |       0.07815      0.07985      0.08771      0.09994      0.12846
 3656800.00 |       0.07301      0.07679      0.09197      0.10447      0.15757
```

CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT5   ***
INCLUDING SOURCE(S):   POINT5 ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00
3657500.00	1.77950	2.92293	4.17225	4.99278	5.26162	5.32976	4.85023	4.31939
3657400.00	1.68994	2.59931	3.51718	4.22785	4.59469	4.71187	4.36135	3.69347
3657300.00	1.72662	2.35111	3.13261	3.67754	4.07465	4.13867	4.03789	3.65799
3657200.00	1.27525	1.65686	2.03023	2.23133	2.30326	2.74709	3.15614	3.35873
3657100.00	0.34933	0.69122	0.81076	0.79989	1.01068	1.33009	1.63060	2.86666
3657000.00	0.22686	0.36775	0.45631	0.69498	1.97992	2.36465	2.61758	3.17125
3656900.00	0.22115	0.39650	0.83401	1.86560	2.40260	2.66831	2.54107	2.43351
3656800.00	0.24702	0.43201	0.68571	0.73732	1.70388	2.32345	2.26912	2.36003

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT6   ***
INCLUDING SOURCE(S):   POINT6 ,

*** NETWORK ID: GRID1   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 509150.00	509250.00	509350.00	509450.00	509550.00
3657000.00	0.04196	0.04984	0.08860	0.10494	0.12103
3656900.00	0.03834	0.05325	0.07207	0.09208	0.09792
3656800.00	0.04371	0.06199	0.08396	0.09623	0.11112

*** ISCST3 - VERSION 00101 ***   *** Montecito Ranch WTF Construction HRA
***   01/30/07
***
***   15:09:43
**MODELOPTs:
PAGE 23
CONC   RURAL ELEV   DFAULT

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: POINT6   ***
INCLUDING SOURCE(S):   POINT6 ,

*** NETWORK ID: GRID2   ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER   IN MICROGRAMS/M**3
**

Y-COORD (METERS)	X-COORD (METERS) 509650.00	509750.00	509850.00	509950.00	510050.00	510150.00	510250.00	510350.00
3657500.00	0.73490	1.03545	1.33344	1.67806	3.03671	5.27614	6.53745	7.28897
3657400.00	0.69000	0.85367	1.15589	1.38046	2.72270	4.25981	5.36882	5.86665
3657300.00	0.71775	0.91080	1.07539	1.62263	2.38588	3.61539	4.61797	4.81927
3657200.00	0.57859	0.58784	0.64227	0.83116	1.27291	2.27668	3.05526	3.57324
3657100.00	0.19928	0.21810	0.23526	0.27583	0.58726	1.21572	2.10464	2.74595
3657000.00	0.12062	0.11714	0.13103	0.25887	1.27177	1.96521	2.63294	3.18224
3656900.00	0.10613	0.12956	0.25403	0.89597	1.63618	2.39488	2.66347	2.71369
3656800.00	0.10907	0.14285	0.22240	0.32213	1.24571	2.11568	2.26605	2.60741

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***        01/30/07
                                   ***
***        15:09:43
**MODELOPTs:
PAGE  24
CONC                        RURAL  ELEV          DFAULT

                                           *** THE SUMMARY OF MAXIMUM ANNUAL (   1 YRS)
RESULTS ***


                                       ** CONC OF OTHER    IN MICROGRAMS/M**3
**


NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -

ALL      1ST HIGHEST VALUE IS      33.48631 AT (  509650.00,  3657300.00,    521.00,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS      28.26818 AT (  509650.00,  3657400.00,    533.70,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS      26.97891 AT (  509650.00,  3657200.00,    479.80,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS      26.28306 AT (  509750.00,  3657300.00,    506.60,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS      24.57038 AT (  509750.00,  3657400.00,    535.20,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS      23.96259 AT (  509650.00,  3657500.00,    523.20,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS      23.21804 AT (  509750.00,  3657500.00,    526.80,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS      22.63827 AT (  509850.00,  3657300.00,    506.00,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS      22.33956 AT (  509750.00,  3657200.00,    473.50,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS      22.33327 AT (  509850.00,  3657400.00,    524.00,
0.00)  GC   GRID2

POINT    1ST HIGHEST VALUE IS       7.11612 AT (  509350.00,  3657000.00,    452.60,
0.00)  GC   GRID1
         2ND HIGHEST VALUE IS       6.85887 AT (  509650.00,  3657100.00,    459.60,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       6.85217 AT (  509650.00,  3657200.00,    479.80,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS       6.66519 AT (  509550.00,  3657000.00,    449.90,
0.00)  GC   GRID1
         5TH HIGHEST VALUE IS       6.48113 AT (  509450.00,  3657000.00,    449.90,
0.00)  GC   GRID1
         6TH HIGHEST VALUE IS       6.08304 AT (  509650.00,  3657300.00,    521.00,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       5.78617 AT (  509650.00,  3657000.00,    449.90,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       5.56949 AT (  509750.00,  3657100.00,    461.90,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       4.98104 AT (  509750.00,  3657000.00,    449.60,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       4.97905 AT (  509750.00,  3657200.00,    473.50,
0.00)  GC   GRID2

POINT2   1ST HIGHEST VALUE IS       7.74620 AT (  509350.00,  3657000.00,    452.60,
0.00)  GC   GRID1
         2ND HIGHEST VALUE IS       7.07392 AT (  509250.00,  3657000.00,    445.90,
0.00)  GC   GRID1
         3RD HIGHEST VALUE IS       6.91242 AT (  509150.00,  3657000.00,    444.10,
0.00)  GC   GRID1
```

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         4TH HIGHEST VALUE IS       5.40492 AT (  509450.00,  3657000.00,    449.90,
0.00)  GC   GRID1
         5TH HIGHEST VALUE IS       4.47624 AT (  509350.00,  3656900.00,    443.30,
0.00)  GC   GRID1
         6TH HIGHEST VALUE IS       4.38376 AT (  509650.00,  3656800.00,    449.70,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       4.31111 AT (  509250.00,  3656900.00,    442.60,
0.00)  GC   GRID1
         8TH HIGHEST VALUE IS       4.18868 AT (  509450.00,  3656900.00,    444.80,
0.00)  GC   GRID1
         9TH HIGHEST VALUE IS       4.12793 AT (  509550.00,  3657000.00,    449.90,
0.00)  GC   GRID1
        10TH HIGHEST VALUE IS       3.98095 AT (  509650.00,  3657200.00,    479.80,
0.00)  GC   GRID2
```

CONC   RURAL ELEV   DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

```
NETWORK
GROUP ID                AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

POINT3   1ST HIGHEST VALUE IS      17.71427 AT (  509650.00,  3657300.00,    521.00,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS      14.01780 AT (  509650.00,  3657400.00,    533.70,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS      13.12851 AT (  509650.00,  3657200.00,    479.80,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS      11.30486 AT (  509750.00,  3657300.00,    506.60,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS      10.97919 AT (  509750.00,  3657200.00,    473.50,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS      10.21763 AT (  509750.00,  3657400.00,    535.20,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       9.42204 AT (  509650.00,  3657500.00,    523.20,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       8.49690 AT (  509850.00,  3657200.00,    472.90,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       7.68721 AT (  509750.00,  3657500.00,    526.80,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       7.57356 AT (  509850.00,  3657300.00,    506.00,
0.00)  GC   GRID2

POINT4   1ST HIGHEST VALUE IS       6.63807 AT (  509750.00,  3657500.00,    526.80,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS       6.56791 AT (  509850.00,  3657500.00,    519.70,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       5.77897 AT (  509950.00,  3657500.00,    522.30,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS       5.68723 AT (  509850.00,  3657400.00,    524.00,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS       5.66956 AT (  509650.00,  3657500.00,    523.20,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS       5.52276 AT (  509950.00,  3657400.00,    504.90,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       5.25780 AT (  509750.00,  3657400.00,    535.20,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       4.92354 AT (  509650.00,  3657400.00,    533.70,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       4.86402 AT (  510050.00,  3657500.00,    524.60,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       4.63905 AT (  509850.00,  3657300.00,    506.00,
0.00)  GC   GRID2

POINT5   1ST HIGHEST VALUE IS       5.32976 AT (  510150.00,  3657500.00,    516.60,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS       5.26162 AT (  510050.00,  3657500.00,    524.60,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       4.99278 AT (  509950.00,  3657500.00,    522.30,
0.00)  GC   GRID2
```

```
         4TH HIGHEST VALUE IS       4.85023 AT (  510250.00,  3657500.00,    509.50,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS       4.71187 AT (  510150.00,  3657400.00,    514.30,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS       4.59469 AT (  510050.00,  3657400.00,    511.60,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       4.36135 AT (  510250.00,  3657400.00,    513.90,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       4.31939 AT (  510350.00,  3657500.00,    504.00,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       4.22785 AT (  509950.00,  3657400.00,    504.90,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       4.17225 AT (  509850.00,  3657500.00,    519.70,
0.00)  GC   GRID2
```

CONC   RURAL ELEV   DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

```
NETWORK
GROUP ID                     AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -

POINT6   1ST HIGHEST VALUE IS       7.28897 AT (  510350.00,  3657500.00,    504.00,
0.00)  GC   GRID2
         2ND HIGHEST VALUE IS       6.53745 AT (  510250.00,  3657500.00,    509.50,
0.00)  GC   GRID2
         3RD HIGHEST VALUE IS       5.86665 AT (  510350.00,  3657400.00,    520.40,
0.00)  GC   GRID2
         4TH HIGHEST VALUE IS       5.36882 AT (  510250.00,  3657400.00,    513.90,
0.00)  GC   GRID2
         5TH HIGHEST VALUE IS       5.27614 AT (  510150.00,  3657500.00,    516.60,
0.00)  GC   GRID2
         6TH HIGHEST VALUE IS       4.81927 AT (  510350.00,  3657300.00,    503.00,
0.00)  GC   GRID2
         7TH HIGHEST VALUE IS       4.61797 AT (  510250.00,  3657300.00,    498.30,
0.00)  GC   GRID2
         8TH HIGHEST VALUE IS       4.25981 AT (  510150.00,  3657400.00,    514.30,
0.00)  GC   GRID2
         9TH HIGHEST VALUE IS       3.61539 AT (  510150.00,  3657300.00,    494.10,
0.00)  GC   GRID2
        10TH HIGHEST VALUE IS       3.57324 AT (  510350.00,  3657200.00,    481.40,
0.00)  GC   GRID2

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY
```

```
 *** ISCST3 - VERSION 00101 ***    *** Montecito Ranch WTF Construction HRA
***         01/30/07
                                   ***
***         15:09:43
**MODELOPTs:
PAGE  27
CONC                        RURAL  ELEV          DFAULT


*** Message Summary : ISCST3 Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            6 Warning Message(s)
A Total of         1526 Informational Message(s)

A Total of         1526 Calm Hours Identified


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320    18 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS

SO W320    20 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    22 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    24 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    26 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS
SO W320    28 PPARM :Input Parameter May Be Out-of-Range for Parameter       VS

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

CALINE4 Model Outputs

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: Ash Street & Pine Street 2010 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

       U=   1.0 M/S              Z0= 100. CM            ALT=     0. (M)
     BRG= WORST CASE             VD=    .0 CM/S
    CLAS=     7 (G)              VS=    .0 CM/S
    MIXH= 1000. M               AMB=    .0 PPM
   SIGTH=   10. DEGREES        TEMP= 18.0 DEGREE (C)

 II.  LINK VARIABLES

     LINK       *  LINK COORDINATES (M)   *              EF     H     W
  DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*-------------------------------
A. Ash EBLA     *  -150     0     0     0 *  AG     26   7.5     .0  10.0
B. Ash EBTA     *  -150    -4     0    -4 *  AG     18   7.5     .0  10.0
C. Ash EBRA     *  -150    -6     0    -6 *  AG    120   7.5     .0  10.0
D. Ash EBD      *     0    -4   150    -4 *  AG     22   7.5     .0  10.0
E. Ash WBLA     *   150     0     0     0 *  AG      5   7.5     .0  10.0
F. Ash WBTA     *   150     4     0     4 *  AG     13   7.5     .0  10.0
G. Ash WBRA     *   150     6     0     6 *  AG      9   7.5     .0  10.0
H. Ash WBD      *     0     4  -150     4 *  AG    109   7.5     .0  10.0
I. Pine NBLA    *     0  -150     0     0 *  AG     81   7.5     .0  10.0
J. Pine NBTA    *     4  -150     4     0 *  AG    851   7.5     .0  10.0
K. Pine NBRA    *     6  -150     6     0 *  AG      2   7.5     .0  10.0
L. Pine NBD     *     4     0     4   150 *  AG    886   7.5     .0  10.0
M. Pine SBLA    *     0   150     0     0 *  AG      2   7.5     .0  10.0
N. Pine SBTA    *    -4   150    -4     0 *  AG    727   7.5     .0  10.0
O. Pine SBRA    *    -6   150    -6     0 *  AG     15   7.5     .0  10.0
P. Pine SBD     *    -4     0    -4  -150 *  AG    852   7.5     .0  10.0
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Ash Street & Pine Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Ash Street & Pine Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.7	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	15.	.7	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.7	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	34.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.4	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	165.	.6	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	167.	.6	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	197.	.6	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	279.	.3	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	277.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	344.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	344.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	194.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	193.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	259.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Ash Street & Pine Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.3	.0	.3	.0	.0
2. Recpt 2	.0	.0	.0	.2	.0	.2	.0	.2
3. Recpt 3	.0	.0	.0	.2	.0	.0	.0	.3
4. Recpt 4	.0	.0	.0	.2	.0	.1	.0	.0
5. Recpt 5	.0	.0	.0	.1	.0	.1	.0	.0
6. Recpt 6	.0	.2	.0	.0	.0	.0	.0	.3
7. Recpt 7	.0	.1	.0	.0	.0	.0	.0	.2
8. Recpt 8	.0	.1	.0	.0	.0	.0	.0	.1
9. Recpt 9	.0	.2	.0	.0	.0	.0	.0	.2
10. Recpt 10	.0	.2	.0	.0	.0	.2	.0	.2
11. Recpt 11	.0	.3	.0	.0	.0	.0	.0	.2
12. Recpt 12	.0	.1	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.1	.0	.2	.0	.2	.0	.0
15. Recpt 15	.0	.2	.0	.1	.0	.1	.0	.0
16. Recpt 16	.0	.3	.0	.0	.0	.0	.0	.2
17. Recpt 17	.0	.2	.0	.2	.0	.0	.0	.2
18. Recpt 18	.0	.1	.0	.3	.0	.0	.0	.2
19. Recpt 19	.0	.2	.0	.0	.0	.0	.0	.1
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Ash Street & Pine Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE            VD=    .0 CM/S
  CLAS=     7 (G)             VS=    .0 CM/S
  MIXH= 1000. M              AMB=    .0 PPM
 SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Ash EBLA	-150	0	0	0	AG	25	7.5	.0	10.0
B. Ash EBTA	-150	-4	0	-4	AG	12	7.5	.0	10.0
C. Ash EBRA	-150	-6	0	-6	AG	94	7.5	.0	10.0
D. Ash EBD	0	-4	150	-4	AG	21	7.5	.0	10.0
E. Ash WBLA	150	0	0	0	AG	8	7.5	.0	10.0
F. Ash WBTA	150	4	0	4	AG	20	7.5	.0	10.0
G. Ash WBRA	150	6	0	6	AG	3	7.5	.0	10.0
H. Ash WBD	0	4	-150	4	AG	182	7.5	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	134	7.5	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	645	7.5	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	4	7.5	.0	10.0
L. Pine NBD	4	0	4	150	AG	673	7.5	.0	10.0
M. Pine SBLA	0	150	0	0	AG	5	7.5	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	1057	7.5	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	28	7.5	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	1159	7.5	.0	10.0

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: Ash Street & Pine Street 2010 pm
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   3

               JOB: Ash Street & Pine Street 2010 pm
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.7	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.7	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.8	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	30.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.7	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	155.	.4	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	166.	.7	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	167.	.7	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	197.	.6	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	280.	.4	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	278.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	201.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	344.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	194.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	260.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Ash Street & Pine Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.2	.0	.4	.0	.0
2. Recpt 2	.0	.0	.0	.2	.0	.2	.0	.2
3. Recpt 3	.0	.0	.0	.1	.0	.1	.0	.3
4. Recpt 4	.0	.0	.0	.1	.0	.2	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.1	.0	.0
6. Recpt 6	.0	.2	.0	.0	.0	.0	.0	.4
7. Recpt 7	.0	.1	.0	.0	.0	.0	.0	.2
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.2
9. Recpt 9	.0	.2	.0	.0	.0	.1	.0	.3
10. Recpt 10	.0	.1	.0	.0	.0	.2	.0	.2
11. Recpt 11	.0	.2	.0	.0	.0	.0	.0	.3
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.1
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.2	.0	.0	.0	.0	.0	.3
15. Recpt 15	.0	.2	.0	.0	.0	.2	.0	.0
16. Recpt 16	.0	.3	.0	.0	.0	.0	.0	.3
17. Recpt 17	.0	.2	.0	.1	.0	.0	.0	.3
18. Recpt 18	.0	.0	.0	.2	.0	.1	.0	.2
19. Recpt 19	.0	.1	.0	.0	.0	.0	.0	.2
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Pine Street & Olive Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=   1.0 M/S              Z0= 100. CM           ALT=     0. (M)
   BRG= WORST CASE             VD=    .0 CM/S
  CLAS=     7 (G)              VS=    .0 CM/S
  MIXH= 1000. M               AMB=    .0 PPM
 SIGTH=   10. DEGREES        TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Olive EBLA	-150	0	0	0	AG	13	7.5	.0	10.0
B. Olive EBTA	-150	-4	0	-4	AG	1	7.5	.0	10.0
C. Olive EBRA	-150	-6	0	-6	AG	12	7.5	.0	10.0
D. Olive EBD	0	-4	150	-4	AG	28	7.5	.0	10.0
E. Olive WBLA	150	0	0	0	AG	5	7.5	.0	10.0
F. Olive WBTA	150	4	0	4	AG	1	7.5	.0	10.0
G. Olive WBRA	150	6	0	6	AG	24	7.5	.0	10.0
H. Olive WBD	0	4	-150	4	AG	14	7.5	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	5	7.5	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	1030	7.5	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	2	7.5	.0	10.0
L. Pine NBD	4	0	4	150	AG	1067	7.5	.0	10.0
M. Pine SBLA	0	150	0	0	AG	25	7.5	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	813	7.5	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	8	7.5	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	830	7.5	.0	10.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   2

    JOB: Pine Street & Olive Street 2010 am
    RUN: Hour 1           (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Pine Street & Olive Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.7	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.7	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.7	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	34.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	17.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	164.	.6	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	165.	.6	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	344.	.6	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	334.	.4	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	326.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	345.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.6	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	195.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	210.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Olive Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.3	.0	.3	.0	.0
2. Recpt 2	.0	.0	.0	.3	.0	.2	.0	.2
3. Recpt 3	.0	.1	.0	.2	.0	.1	.0	.3
4. Recpt 4	.0	.0	.0	.2	.0	.2	.0	.0
5. Recpt 5	.0	.0	.0	.1	.0	.1	.0	.0
6. Recpt 6	.0	.0	.0	.3	.0	.3	.0	.0
7. Recpt 7	.0	.2	.0	.0	.0	.0	.0	.2
8. Recpt 8	.0	.1	.0	.0	.0	.0	.0	.1
9. Recpt 9	.0	.3	.0	.0	.0	.1	.0	.2
10. Recpt 10	.0	.2	.0	.0	.0	.2	.0	.1
11. Recpt 11	.0	.0	.0	.4	.0	.2	.0	.0
12. Recpt 12	.0	.0	.0	.2	.0	.1	.0	.0
13. Recpt 13	.0	.0	.0	.1	.0	.1	.0	.0
14. Recpt 14	.0	.1	.0	.3	.0	.2	.0	.0
15. Recpt 15	.0	.2	.0	.1	.0	.2	.0	.0
16. Recpt 16	.0	.4	.0	.0	.0	.0	.0	.2
17. Recpt 17	.0	.2	.0	.2	.0	.0	.0	.2
18. Recpt 18	.0	.1	.0	.3	.0	.0	.0	.2
19. Recpt 19	.0	.2	.0	.0	.0	.0	.0	.1
20. Recpt 20	.0	.1	.0	.0	.0	.0	.0	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Pine Street & Olive Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE            VD=   .0 CM/S
  CLAS=     7 (G)             VS=   .0 CM/S
  MIXH= 1000. M              AMB=   .0 PPM
 SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Olive EBLA	-150	0	0	0	AG	16	7.5	.0	10.0
B. Olive EBTA	-150	-4	0	-4	AG	1	7.5	.0	10.0
C. Olive EBRA	-150	-6	0	-6	AG	10	7.5	.0	10.0
D. Olive EBD	0	-4	150	-4	AG	24	7.5	.0	10.0
E. Olive WBLA	150	0	0	0	AG	5	7.5	.0	10.0
F. Olive WBTA	150	4	0	4	AG	1	7.5	.0	10.0
G. Olive WBRA	150	6	0	6	AG	28	7.5	.0	10.0
H. Olive WBD	0	4	-150	4	AG	22	7.5	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	9	7.5	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	861	7.5	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	6	7.5	.0	10.0
L. Pine NBD	4	0	4	150	AG	905	7.5	.0	10.0
M. Pine SBLA	0	150	0	0	AG	16	7.5	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	1099	7.5	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	12	7.5	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	1114	7.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Pine Street & Olive Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Pine Street & Olive Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.8	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.8	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.8	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	30.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.7	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.4	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	164.	.7	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	165.	.7	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	344.	.7	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	334.	.4	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	326.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	344.	.7	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.7	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.7	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	195.	.7	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.7	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	214.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Olive Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.3	.0	.4	.0	.0
2. Recpt 2	.0	.0	.0	.2	.0	.3	.0	.2
3. Recpt 3	.0	.0	.0	.2	.0	.1	.0	.3
4. Recpt 4	.0	.0	.0	.2	.0	.2	.0	.0
5. Recpt 5	.0	.0	.0	.1	.0	.1	.0	.0
6. Recpt 6	.0	.2	.0	.0	.0	.0	.0	.4
7. Recpt 7	.0	.1	.0	.0	.0	.0	.0	.2
8. Recpt 8	.0	.1	.0	.0	.0	.0	.0	.1
9. Recpt 9	.0	.2	.0	.0	.0	.2	.0	.3
10. Recpt 10	.0	.2	.0	.0	.0	.3	.0	.2
11. Recpt 11	.0	.0	.0	.3	.0	.3	.0	.0
12. Recpt 12	.0	.0	.0	.2	.0	.2	.0	.0
13. Recpt 13	.0	.0	.0	.1	.0	.1	.0	.0
14. Recpt 14	.0	.1	.0	.2	.0	.3	.0	.0
15. Recpt 15	.0	.2	.0	.1	.0	.2	.0	.0
16. Recpt 16	.0	.3	.0	.0	.0	.0	.0	.3
17. Recpt 17	.0	.2	.0	.2	.0	.0	.0	.3
18. Recpt 18	.0	.1	.0	.3	.0	.1	.0	.2
19. Recpt 19	.0	.2	.0	.0	.0	.0	.0	.2
20. Recpt 20	.0	.1	.0	.0	.0	.0	.0	.1

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        CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   1

            JOB: Pine Street & Main Street 2010 am
            RUN: Hour 1           (WORST CASE ANGLE)
      POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
       U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
     BRG= WORST CASE            VD=    .0 CM/S
    CLAS=     7 (G)             VS=    .0 CM/S
    MIXH= 1000. M              AMB=    .0 PPM
   SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	322	7.5	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	659	7.5	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	165	7.5	.0	10.0
D. Main EBD	0	-4	150	-4	AG	868	7.5	.0	10.0
E. Main WBLA	150	0	0	0	AG	168	7.5	.0	10.0
F. Main WBTA	150	4	0	4	AG	729	7.5	.0	10.0
G. Main WBRA	150	6	0	6	AG	127	7.5	.0	10.0
H. Main WBD	0	4	-150	4	AG	1197	7.5	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	187	7.5	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	310	7.5	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	96	7.5	.0	10.0
L. Pine NBD	4	0	4	150	AG	759	7.5	.0	10.0
M. Pine SBLA	0	150	0	0	AG	113	7.5	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	285	7.5	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	281	7.5	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	618	7.5	.0	10.0

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            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   2

                JOB: Pine Street & Main Street 2010 am
                RUN: Hour 1           (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   3

              JOB: Pine Street & Main Street 2010 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                  CONC/LINK
            *  BRG  * CONC  *                    (PPM)
 RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*----------------------------------------
 1. Recpt 1  *   15. *   1.0 *   .0   .1   .0   .0   .0   .0   .0   .2
 2. Recpt 2  *   12. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .1
 3. Recpt 3  *   11. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
 4. Recpt 4  *   74. *    .9 *   .0   .0   .0   .2   .0   .2   .0   .0
 5. Recpt 5  *   74. *    .9 *   .0   .2   .0   .1   .0   .1   .0   .1
 6. Recpt 6  *  105. *   1.0 *   .0   .0   .0   .2   .0   .3   .0   .0
 7. Recpt 7  *  106. *   1.0 *   .0   .0   .0   .2   .0   .2   .0   .3
 8. Recpt 8  *  105. *   1.0 *   .0   .0   .0   .2   .0   .0   .0   .4
 9. Recpt 9  *  165. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .1
10. Recpt 10 *  166. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
11. Recpt 11 *  285. *   1.1 *   .1   .3   .0   .0   .0   .0   .0   .3
12. Recpt 12 *  284. *   1.0 *   .1   .2   .0   .2   .0   .0   .0   .3
13. Recpt 13 *  282. *    .9 *   .0   .1   .0   .2   .0   .0   .0   .2
14. Recpt 14 *  347. *    .8 *   .0   .0   .0   .1   .0   .0   .0   .0
15. Recpt 15 *  346. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
16. Recpt 16 *  254. *   1.1 *   .1   .2   .0   .0   .0   .0   .0   .4
17. Recpt 17 *  200. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
18. Recpt 18 *  196. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
19. Recpt 19 *  257. *   1.0 *   .1   .2   .0   .0   .0   .0   .0   .3
20. Recpt 20 *  257. *    .9 *   .0   .1   .0   .0   .0   .2   .0   .2
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Main Street 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.2	.0	.1	.1	.0
2. Recpt 2	.0	.0	.0	.2	.0	.0	.0	.1
3. Recpt 3	.0	.0	.0	.2	.0	.0	.0	.2
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.1	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.2
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.1
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.1
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.2	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.1	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.2	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.2	.0	.0	.0	.1
18. Recpt 18	.0	.0	.0	.3	.0	.0	.0	.1
19. Recpt 19	.0	.0	.0	.1	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: Pine Street & Main Street 2010 pm
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
       U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
     BRG= WORST CASE            VD=    .0 CM/S
    CLAS=     7 (G)             VS=    .0 CM/S
    MIXH= 1000. M              AMB=    .0 PPM
   SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	375	7.5	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	1259	7.5	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	341	7.5	.0	10.0
D. Main EBD	0	-4	150	-4	AG	1569	7.5	.0	10.0
E. Main WBLA	150	0	0	0	AG	186	7.5	.0	10.0
F. Main WBTA	150	4	0	4	AG	755	7.5	.0	10.0
G. Main WBRA	150	6	0	6	AG	151	7.5	.0	10.0
H. Main WBD	0	4	-150	4	AG	1302	7.5	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	172	7.5	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	262	7.5	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	153	7.5	.0	10.0
L. Pine NBD	4	0	4	150	AG	788	7.5	.0	10.0
M. Pine SBLA	0	150	0	0	AG	157	7.5	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	434	7.5	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	375	7.5	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	961	7.5	.0	10.0

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            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   2

                JOB: Pine Street & Main Street 2010 pm
                RUN: Hour 1           (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

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        CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   3

            JOB: Pine Street & Main Street 2010 pm
            RUN: Hour 1           (WORST CASE ANGLE)
      POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	1.3	.0	.3	.0	.0	.0	.0	.0	.2
2. Recpt 2	12.	1.1	.0	.1	.0	.0	.0	.0	.0	.1
3. Recpt 3	11.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	69.	1.2	.0	.3	.1	.2	.0	.2	.0	.0
5. Recpt 5	73.	1.2	.0	.3	.1	.1	.0	.1	.0	.1
6. Recpt 6	106.	1.3	.0	.0	.0	.4	.0	.3	.0	.0
7. Recpt 7	110.	1.2	.0	.0	.0	.3	.0	.0	.0	.4
8. Recpt 8	106.	1.2	.0	.2	.0	.2	.0	.0	.0	.4
9. Recpt 9	166.	1.0	.0	.1	.0	.0	.0	.0	.0	.2
10. Recpt 10	166.	.9	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	285.	1.5	.1	.5	.2	.0	.0	.0	.0	.4
12. Recpt 12	283.	1.3	.1	.3	.0	.3	.0	.0	.0	.3
13. Recpt 13	282.	1.3	.0	.2	.0	.4	.0	.0	.0	.3
14. Recpt 14	345.	.9	.0	.0	.0	.2	.0	.0	.0	.0
15. Recpt 15	345.	.9	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	253.	1.4	.1	.3	.0	.0	.0	.0	.0	.5
17. Recpt 17	200.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	196.	.9	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	255.	1.2	.1	.3	.0	.0	.0	.0	.0	.3
20. Recpt 20	257.	1.1	.0	.3	.0	.0	.0	.2	.0	.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Main Street 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.2	.0	.2	.2	.0
2. Recpt 2	.0	.0	.0	.2	.0	.1	.1	.2
3. Recpt 3	.0	.0	.0	.2	.0	.0	.0	.2
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.1
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.1	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.3
10. Recpt 10	.0	.0	.0	.0	.0	.1	.1	.2
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.2
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.2	.0	.1	.1	.0
15. Recpt 15	.0	.0	.0	.1	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.2	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.2	.0	.0	.0	.2
18. Recpt 18	.0	.0	.0	.3	.0	.0	.0	.2
19. Recpt 19	.0	.0	.0	.1	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Main Street & Montecito Road 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE            VD=    .0 CM/S
  CLAS=     7 (G)             VS=    .0 CM/S
  MIXH= 1000. M              AMB=    .0 PPM
 SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	304	7.5	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	1335	7.5	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	79	7.5	.0	10.0
D. Main EBD	0	-4	150	-4	AG	1548	7.5	.0	10.0
E. Main WBLA	150	0	0	0	AG	35	7.5	.0	10.0
F. Main WBTA	150	4	0	4	AG	1151	7.5	.0	10.0
G. Main WBRA	150	6	0	6	AG	96	7.5	.0	10.0
H. Main WBD	0	4	-150	4	AG	1433	7.5	.0	10.0
I. Mont NBLA	0	-150	0	0	AG	63	7.5	.0	10.0
J. Mont NBTA	4	-150	4	0	AG	42	7.5	.0	10.0
K. Mont NBRA	6	-150	6	0	AG	73	7.5	.0	10.0
L. Mont NBD	4	0	4	150	AG	442	7.5	.0	10.0
M. Mont SBLA	0	150	0	0	AG	140	7.5	.0	10.0
N. Mont SBTA	-4	150	-4	0	AG	31	7.5	.0	10.0
O. Mont SBRA	-6	150	-6	0	AG	219	7.5	.0	10.0
P. Mont SBD	-4	0	-4	-150	AG	145	7.5	.0	10.0

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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: Main Street & Montecito Road 2010 pm
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Main Street & Montecito Road 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	287.	1.0	.1	.5	.0	.0	.0	.0	.0	.3
2. Recpt 2	11.	.7	.0	.2	.0	.0	.0	.0	.0	.1
3. Recpt 3	10.	.6	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	69.	1.0	.0	.3	.0	.2	.0	.2	.0	.0
5. Recpt 5	73.	1.0	.0	.4	.0	.1	.0	.2	.0	.1
6. Recpt 6	105.	1.1	.0	.0	.0	.4	.0	.4	.0	.0
7. Recpt 7	105.	1.1	.0	.0	.0	.4	.0	.2	.0	.3
8. Recpt 8	105.	1.1	.0	.1	.0	.3	.0	.1	.0	.4
9. Recpt 9	115.	.7	.0	.0	.0	.2	.0	.2	.0	.0
10. Recpt 10	124.	.6	.0	.0	.0	.2	.0	.2	.0	.0
11. Recpt 11	285.	1.2	.1	.5	.0	.0	.0	.0	.0	.4
12. Recpt 12	284.	1.2	.0	.3	.0	.3	.0	.0	.0	.3
13. Recpt 13	284.	1.1	.0	.2	.0	.4	.0	.1	.0	.3
14. Recpt 14	347.	.7	.0	.0	.0	.2	.0	.1	.0	.0
15. Recpt 15	349.	.5	.0	.0	.0	.1	.0	.0	.0	.0
16. Recpt 16	254.	1.2	.1	.3	.0	.0	.0	.0	.0	.5
17. Recpt 17	244.	.7	.0	.2	.0	.0	.0	.0	.0	.2
18. Recpt 18	236.	.6	.0	.2	.0	.0	.0	.0	.0	.2
19. Recpt 19	255.	1.1	.0	.3	.0	.0	.0	.1	.0	.3
20. Recpt 20	257.	1.0	.0	.3	.0	.0	.0	.2	.0	.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Main Street & Montecito Road 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P
	CONC/LINK (PPM)							
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.1	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.1	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.1	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.1	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.1	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.1	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.1	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR67 and Dye Road 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 18.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Dye EBLA	-150	0	0	0	AG	102	7.5	.0	10.0
B. Dye EBTA	-150	-4	0	-4	AG	18	7.5	.0	10.0
C. Dye EBRA	-150	-6	0	-6	AG	10	7.5	.0	10.0
D. Dye EBD	0	-4	150	-4	AG	188	7.5	.0	10.0
E. Dye WBLA	150	0	0	0	AG	542	7.5	.0	10.0
F. Dye WBTA	150	4	0	4	AG	61	7.5	.0	10.0
G. Dye WBRA	150	6	0	6	AG	34	7.5	.0	10.0
H. Dye WBD	0	4	-150	4	AG	165	7.5	.0	10.0
I. SR67 NBLA	0	-150	0	0	AG	4	7.5	.0	10.0
J. SR67 NBTA	4	-150	4	0	AG	637	7.5	.0	10.0
K. SR67 NBRA	6	-150	6	0	AG	120	7.5	.0	10.0
L. SR67 NBD	4	0	4	150	AG	773	7.5	.0	10.0
M. SR67 SBLA	0	150	0	0	AG	50	7.5	.0	10.0
N. SR67 SBTA	-4	150	-4	0	AG	1522	7.5	.0	10.0
O. SR67 SBRA	-6	150	-6	0	AG	100	7.5	.0	10.0
P. SR67 SBD	-4	0	-4	-150	AG	1586	7.5	.0	10.0

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: SR67 and Dye Road 2010 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

Coordinates (M)

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: SR67 and Dye Road 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	78.	.6	.0	.0	.0	.0	.2	.0	.0	.0
5. Recpt 5	80.	.5	.0	.0	.0	.0	.1	.0	.0	.0
6. Recpt 6	164.	.8	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	102.	.6	.0	.0	.0	.0	.2	.0	.0	.0
8. Recpt 8	100.	.5	.0	.0	.0	.0	.1	.0	.0	.0
9. Recpt 9	164.	.9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	164.	.9	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	343.	.9	.0	.0	.0	.0	.1	.0	.0	.0
12. Recpt 12	334.	.6	.0	.0	.0	.0	.1	.0	.0	.0
13. Recpt 13	294.	.5	.0	.0	.0	.0	.2	.0	.0	.0
14. Recpt 14	344.	.9	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	346.	.8	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.9	.0	.0	.0	.0	.1	.0	.0	.0
17. Recpt 17	194.	.9	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.9	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	206.	.6	.0	.0	.0	.0	.1	.0	.0	.0
20. Recpt 20	214.	.5	.0	.0	.0	.0	.1	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: SR67 and Dye Road 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.2	.0	.6	.0	.0
2. Recpt 2	.0	.0	.0	.2	.0	.3	.0	.3
3. Recpt 3	.0	.0	.0	.2	.0	.2	.0	.5
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.2
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.1
6. Recpt 6	.0	.2	.0	.0	.0	.0	.0	.5
7. Recpt 7	.0	.0	.0	.0	.0	.2	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.1	.0	.0
9. Recpt 9	.0	.2	.0	.0	.0	.2	.0	.3
10. Recpt 10	.0	.1	.0	.0	.0	.4	.0	.2
11. Recpt 11	.0	.0	.0	.3	.0	.4	.0	.0
12. Recpt 12	.0	.0	.0	.1	.0	.2	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.1	.0	.0
14. Recpt 14	.0	.0	.0	.2	.0	.4	.0	.0
15. Recpt 15	.0	.2	.0	.1	.0	.3	.0	.0
16. Recpt 16	.0	.3	.0	.0	.0	.0	.0	.4
17. Recpt 17	.0	.2	.0	.2	.0	.0	.0	.4
18. Recpt 18	.0	.0	.0	.2	.0	.1	.0	.3
19. Recpt 19	.0	.1	.0	.0	.0	.0	.0	.2
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.2

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: A Moore and SR67 2010 am peak
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

       U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
     BRG= WORST CASE            VD=   .0 CM/S
    CLAS=     7 (G)             VS=   .0 CM/S
    MIXH= 1000. M              AMB=   .0 PPM
   SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)

 II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)    *             EF     H     W
  DESCRIPTION  *   X1    Y1    X2    Y2   * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. AM EBLA     *  -150     0     0     0 *  AG     26   7.5     .0  10.0
B. AM EBRA     *  -150    -4     0    -4 *  AG    205   7.5     .0  10.0
C. AM WBD      *     0     4  -150     4 *  AG    257   7.5     .0  10.0
D. SR67 NBLA   *     0  -150     0     0 *  AG    181   7.5     .0  10.0
E. SR67 NBTA   *     4  -150     4     0 *  AG    551   7.5     .0  10.0
F. SR67 NBD    *     4     0     4   150 *  AG    577   7.5     .0  10.0
G. SR67 SBRA   *    -4   150    -4     0 *  AG     76   7.5     .0  10.0
H. SR67 SBTA   *     0   150     0     0 *  AG   1972   7.5     .0  10.0
I. SR67 SBD    *    -4     0    -4  -150 *  AG   2177   7.5     .0  10.0
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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: A Moore and SR67 2010 am peak
               RUN: Hour 1            (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


 III.  RECEPTOR LOCATIONS

               *     COORDINATES (M)
   RECEPTOR    *     X       Y      Z
 ------------*--------------------
  1. Recpt 1   *     14     -60    1.8
  2. Recpt 2   *     14     -40    1.8
  3. Recpt 3   *     14     -20    1.8
  4. Recpt 4   *     14       0    1.8
  5. Recpt 5   *     14      20    1.8
  6. Recpt 6   *     14      40    1.8
  7. Recpt 7   *     14      60    1.8
  8. Recpt 8   *    -14     -14    1.8
  9. Recpt 9   *    -34     -14    1.8
 10. Recpt 10  *    -54     -14    1.8
 11. Recpt 11  *    -14     -34    1.8
 12. Recpt 12  *    -14     -54    1.8
 13. Recpt 13  *    -14      14    1.8
 14. Recpt 14  *    -34      14    1.8
 15. Recpt 15  *    -54      14    1.8
 16. Recpt 16  *    -14      34    1.8
 17. Recpt 17  *    -14      54    1.8
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: A Moore and SR67 2010 am peak
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	339.	.8	.0	.0	.0	.0	.2	.0	.0	.0
2. Recpt 2	201.	.8	.0	.0	.0	.0	.2	.0	.0	.0
3. Recpt 3	200.	.8	.0	.0	.0	.0	.2	.0	.0	.0
4. Recpt 4	343.	.9	.0	.0	.0	.0	.0	.3	.0	.6
5. Recpt 5	208.	.9	.0	.0	.0	.0	.0	.1	.0	.2
6. Recpt 6	199.	1.0	.0	.0	.0	.0	.0	.2	.0	.3
7. Recpt 7	196.	1.0	.0	.0	.0	.0	.0	.2	.0	.4
8. Recpt 8	164.	1.0	.0	.0	.0	.0	.2	.0	.0	.0
9. Recpt 9	25.	.5	.0	.0	.0	.0	.0	.1	.0	.3
10. Recpt 10	34.	.4	.0	.0	.0	.0	.0	.0	.0	.2
11. Recpt 11	19.	1.1	.0	.0	.0	.0	.0	.1	.0	.4
12. Recpt 12	15.	1.1	.0	.0	.0	.0	.0	.1	.0	.3
13. Recpt 13	166.	1.1	.0	.0	.0	.0	.2	.0	.0	.0
14. Recpt 14	155.	.6	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	150.	.5	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	169.	.9	.0	.0	.0	.0	.2	.0	.0	.0
17. Recpt 17	169.	.8	.0	.0	.0	.0	.1	.0	.0	.2

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   4

              JOB: A Moore and SR67 2010 am peak
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

              *
              * (PPM)
  RECEPTOR    *   I
 ------------*-----
 1. Recpt 1  *   .4
 2. Recpt 2  *   .5
 3. Recpt 3  *   .5
 4. Recpt 4  *   .0
 5. Recpt 5  *   .4
 6. Recpt 6  *   .4
 7. Recpt 7  *   .3
 8. Recpt 8  *   .8
 9. Recpt 9  *   .0
10. Recpt 10 *   .0
11. Recpt 11 *   .5
12. Recpt 12 *   .6
13. Recpt 13 *   .8
14. Recpt 14 *   .3
15. Recpt 15 *   .2
16. Recpt 16 *   .5
17. Recpt 17 *   .3
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: A Moore and SR67 2010 pm peak
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

       U=   1.0 M/S            Z0= 100. CM           ALT=     0. (M)
     BRG= WORST CASE           VD=   .0 CM/S
    CLAS=     7 (G)            VS=   .0 CM/S
    MIXH= 1000. M             AMB=   .0 PPM
   SIGTH=   10. DEGREES      TEMP= 18.0 DEGREE (C)

 II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
  DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
---------------*-------------------------*------------------------------
A. AM EBLA     *  -150     0     0     0 *  AG     43   7.5     .0  10.0
B. AM EBRA     *  -150    -4     0    -4 *  AG     84   7.5     .0  10.0
C. AM WBD      *     0     4  -150     4 *  AG    521   7.5     .0  10.0
D. SR67 NBLA   *     0  -150     0     0 *  AG    455   7.5     .0  10.0
E. SR67 NBTA   *     4  -150     4     0 *  AG   1861   7.5     .0  10.0
F. SR67 NBD    *     4     0     4   150 *  AG   1904   7.5     .0  10.0
G. SR67 SBRA   *    -4   150    -4     0 *  AG     66   7.5     .0  10.0
H. SR67 SBTA   *     0   150     0     0 *  AG    761   7.5     .0  10.0
I. SR67 SBD    *    -4     0    -4  -150 *  AG    845   7.5     .0  10.0
```

```
       CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                JUNE 1989 VERSION
                PAGE   2

           JOB: A Moore and SR67 2010 pm peak
           RUN: Hour 1           (WORST CASE ANGLE)
     POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	14	-60	1.8
2. Recpt 2	14	-40	1.8
3. Recpt 3	14	-20	1.8
4. Recpt 4	14	0	1.8
5. Recpt 5	14	20	1.8
6. Recpt 6	14	40	1.8
7. Recpt 7	14	60	1.8
8. Recpt 8	-14	-14	1.8
9. Recpt 9	-34	-14	1.8
10. Recpt 10	-54	-14	1.8
11. Recpt 11	-14	-34	1.8
12. Recpt 12	-14	-54	1.8
13. Recpt 13	-14	14	1.8
14. Recpt 14	-34	14	1.8
15. Recpt 15	-54	14	1.8
16. Recpt 16	-14	34	1.8
17. Recpt 17	-14	54	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: A Moore and SR67 2010 pm peak
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. Recpt 1	344.	1.1	.0	.0	.0	.1	.6	.1	.0	.0
2. Recpt 2	199.	1.1	.0	.0	.0	.2	.7	.0	.0	.0
3. Recpt 3	197.	1.1	.0	.0	.0	.2	.7	.0	.0	.0
4. Recpt 4	196.	1.1	.0	.0	.0	.2	.7	.0	.0	.0
5. Recpt 5	196.	1.1	.0	.0	.0	.2	.6	.2	.0	.0
6. Recpt 6	195.	1.2	.0	.0	.0	.1	.3	.4	.0	.0
7. Recpt 7	193.	1.2	.0	.0	.0	.0	.2	.5	.0	.1
8. Recpt 8	163.	1.0	.0	.0	.0	.2	.4	.0	.0	.0
9. Recpt 9	26.	.6	.0	.0	.1	.0	.0	.3	.0	.1
10. Recpt 10	34.	.5	.0	.0	.1	.0	.0	.2	.0	.1
11. Recpt 11	17.	1.0	.0	.0	.0	.0	.0	.4	.0	.2
12. Recpt 12	15.	1.0	.0	.0	.0	.0	.2	.3	.0	.1
13. Recpt 13	165.	1.1	.0	.0	.1	.2	.5	.0	.0	.0
14. Recpt 14	154.	.7	.0	.0	.1	.0	.3	.0	.0	.0
15. Recpt 15	146.	.6	.0	.0	.1	.0	.2	.0	.0	.0
16. Recpt 16	167.	1.0	.0	.0	.0	.1	.4	.0	.0	.0
17. Recpt 17	168.	.9	.0	.0	.0	.1	.3	.1	.0	.1

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   4

              JOB: A Moore and SR67 2010 pm peak
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

             *
             * (PPM)
  RECEPTOR   *   I
 ------------*-----
 1. Recpt 1  *   .1
 2. Recpt 2  *   .2
 3. Recpt 3  *   .2
 4. Recpt 4  *   .2
 5. Recpt 5  *   .2
 6. Recpt 6  *   .2
 7. Recpt 7  *   .2
 8. Recpt 8  *   .4
 9. Recpt 9  *   .0
10. Recpt 10 *   .0
11. Recpt 11 *   .2
12. Recpt 12 *   .3
13. Recpt 13 *   .3
14. Recpt 14 *   .2
15. Recpt 15 *   .1
16. Recpt 16 *   .2
17. Recpt 17 *   .2
```

```
CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   1

    JOB: Ash Street & Pine Street 2030 am
    RUN: Hour 1           (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
   U=   1.0 M/S            Z0= 100. CM          ALT=     0. (M)
 BRG= WORST CASE           VD=   .0 CM/S
CLAS=     7 (G)            VS=   .0 CM/S
MIXH= 1000. M             AMB=   .0 PPM
SIGTH=   10. DEGREES      TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Ash EBLA	-150	0	0	0	AG	28	2.2	.0	10.0
B. Ash EBTA	-150	-4	0	-4	AG	18	2.2	.0	10.0
C. Ash EBRA	-150	-6	0	-6	AG	113	2.2	.0	10.0
D. Ash EBD	0	-4	150	-4	AG	64	2.2	.0	10.0
E. Ash WBLA	150	0	0	0	AG	6	2.2	.0	10.0
F. Ash WBTA	150	4	0	4	AG	34	2.2	.0	10.0
G. Ash WBRA	150	6	0	6	AG	9	2.2	.0	10.0
H. Ash WBD	0	4	-150	4	AG	246	2.2	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	150	2.2	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	896	2.2	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	23	2.2	.0	10.0
L. Pine NBD	4	0	4	150	AG	933	2.2	.0	10.0
M. Pine SBLA	0	150	0	0	AG	23	2.2	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	813	2.2	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	62	2.2	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	932	2.2	.0	10.0

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: Ash Street & Pine Street 2030 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Ash Street & Pine Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.1	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	34.	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.1	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	165.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	167.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	197.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	281.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	279.	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	194.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	193.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	260.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Ash Street & Pine Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.1
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.1	.0	.0	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: Ash Street & Pine Street 2030 pm
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
         U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
       BRG= WORST CASE            VD=   .0 CM/S
      CLAS=     7 (G)             VS=   .0 CM/S
      MIXH= 1000. M              AMB=   .0 PPM
     SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Ash EBLA	-150	0	0	0	AG	17	2.2	.0	10.0
B. Ash EBTA	-150	-4	0	-4	AG	27	2.2	.0	10.0
C. Ash EBRA	-150	-6	0	-6	AG	100	2.2	.0	10.0
D. Ash EBD	0	-4	150	-4	AG	130	2.2	.0	10.0
E. Ash WBLA	150	0	0	0	AG	9	2.2	.0	10.0
F. Ash WBTA	150	4	0	4	AG	20	2.2	.0	10.0
G. Ash WBRA	150	6	0	6	AG	3	2.2	.0	10.0
H. Ash WBD	0	4	-150	4	AG	359	2.2	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	210	2.2	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	679	2.2	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	46	2.2	.0	10.0
L. Pine NBD	4	0	4	150	AG	699	2.2	.0	10.0
M. Pine SBLA	0	150	0	0	AG	57	2.2	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	1182	2.2	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	129	2.2	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	1291	2.2	.0	10.0

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        CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   2

            JOB: Ash Street & Pine Street 2030 pm
            RUN: Hour 1           (WORST CASE ANGLE)
      POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   3

              JOB: Ash Street & Pine Street 2030 pm
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.3	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	13.	.3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.1	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	30.	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	165.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	167.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	197.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	282.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	280.	.1	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	343.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	194.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	261.	.1	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Ash Street & Pine Street 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.0	.0	.1	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.1
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.1
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.0	.0	.0	.0	.1
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

```
         CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                  JUNE 1989 VERSION
                  PAGE   1

             JOB: Pine Street & Olive Street 2030 am
             RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
      U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
    BRG= WORST CASE            VD=   .0 CM/S
   CLAS=     7 (G)             VS=   .0 CM/S
   MIXH= 1000. M              AMB=   .0 PPM
  SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Olive EBLA	-150	0	0	0	AG	13	2.2	.0	10.0
B. Olive EBTA	-150	-4	0	-4	AG	2	2.2	.0	10.0
C. Olive EBRA	-150	-6	0	-6	AG	12	2.2	.0	10.0
D. Olive EBD	0	-4	150	-4	AG	32	2.2	.0	10.0
E. Olive WBLA	150	0	0	0	AG	5	2.2	.0	10.0
F. Olive WBTA	150	4	0	4	AG	2	2.2	.0	10.0
G. Olive WBRA	150	6	0	6	AG	18	2.2	.0	10.0
H. Olive WBD	0	4	-150	4	AG	19	2.2	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	9	2.2	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	1047	2.2	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	4	2.2	.0	10.0
L. Pine NBD	4	0	4	150	AG	1077	2.2	.0	10.0
M. Pine SBLA	0	150	0	0	AG	26	2.2	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	817	2.2	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	8	2.2	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	835	2.2	.0	10.0

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: Pine Street & Olive Street 2030 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
  1. Recpt 1  *    -14    -16   1.8
  2. Recpt 2  *    -14    -36   1.8
  3. Recpt 3  *    -14    -56   1.8
  4. Recpt 4  *    -34    -16   1.8
  5. Recpt 5  *    -54    -16   1.8
  6. Recpt 6  *    -16     14   1.8
  7. Recpt 7  *    -36     14   1.8

  8. Recpt 8  *    -56     14   1.8
  9. Recpt 9  *    -16     34   1.8
 10. Recpt 10 *    -16     54   1.8
 11. Recpt 11 *     16    -14   1.8
 12. Recpt 12 *     36    -14   1.8
 13. Recpt 13 *     56    -14   1.8
 14. Recpt 14 *     16    -34   1.8
 15. Recpt 15 *     16    -54   1.8
 16. Recpt 16 *     14     16   1.8
 17. Recpt 17 *     14     36   1.8
 18. Recpt 18 *     14     56   1.8
 19. Recpt 19 *     34     16   1.8
 20. Recpt 20 *     54     16   1.8
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Pine Street & Olive Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.1	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	34.	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.1	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	164.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	165.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	334.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	326.	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	345.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	194.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	210.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Olive Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.1	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.1	.0	.0	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Pine Street & Olive Street 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 18.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Olive EBLA	-150	0	0	0	AG	11	2.2	.0	10.0
B. Olive EBTA	-150	-4	0	-4	AG	2	2.2	.0	10.0
C. Olive EBRA	-150	-6	0	-6	AG	10	2.2	.0	10.0
D. Olive EBD	0	-4	150	-4	AG	32	2.2	.0	10.0
E. Olive WBLA	150	0	0	0	AG	5	2.2	.0	10.0
F. Olive WBTA	150	4	0	4	AG	2	2.2	.0	10.0
G. Olive WBRA	150	6	0	6	AG	29	2.2	.0	10.0
H. Olive WBD	0	4	-150	4	AG	32	2.2	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	15	2.2	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	816	2.2	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	13	2.2	.0	10.0
L. Pine NBD	4	0	4	150	AG	855	2.2	.0	10.0
M. Pine SBLA	0	150	0	0	AG	17	2.2	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	1162	2.2	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	15	2.2	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	1178	2.2	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Pine Street & Olive Street 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Pine Street & Olive Street 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	23.	.1	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	30.	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	154.	.1	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	146.	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	164.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	165.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	334.	.1	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	326.	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.2	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	195.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	194.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.1	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	214.	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Olive Street 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P
	CONC/LINK (PPM)							
1. Recpt 1	.0	.0	.0	.0	.0	.1	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.1
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.1
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Pine Street & Main Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
    BRG= WORST CASE            VD=    .0 CM/S
   CLAS=     7 (G)             VS=    .0 CM/S
   MIXH= 1000. M              AMB=    .0 PPM
  SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	335	2.2	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	673	2.2	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	174	2.2	.0	10.0
D. Main EBD	0	-4	150	-4	AG	878	2.2	.0	10.0
E. Main WBLA	150	0	0	0	AG	177	2.2	.0	10.0
F. Main WBTA	150	4	0	4	AG	751	2.2	.0	10.0
G. Main WBRA	150	6	0	6	AG	134	2.2	.0	10.0
H. Main WBD	0	4	-150	4	AG	1226	2.2	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	193	2.2	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	327	2.2	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	98	2.2	.0	10.0
L. Pine NBD	4	0	4	150	AG	796	2.2	.0	10.0
M. Pine SBLA	0	150	0	0	AG	107	2.2	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	288	2.2	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	282	2.2	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	639	2.2	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Pine Street & Main Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Pine Street & Main Street 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.3	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	12.	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	11.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	74.	.3	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	74.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	105.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	106.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	105.	.3	.0	.0	.0	.0	.0	.0	.0	.1
9. Recpt 9	165.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	166.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	285.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	284.	.3	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	282.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	347.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	346.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	254.	.3	.0	.0	.0	.0	.0	.0	.0	.1
17. Recpt 17	200.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	196.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	256.	.3	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	257.	.3	.0	.0	.0	.0	.0	.0	.0	.0

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   4

              JOB: Pine Street & Main Street 2030 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

            *              CONC/LINK
            *                (PPM)
 RECEPTOR   *   I    J    K    L    M    N    O    P
------------*---------------------------------------
 1. Recpt 1  *   .0   .0   .0   .0   .0   .0   .0   .0
 2. Recpt 2  *   .0   .0   .0   .0   .0   .0   .0   .0
 3. Recpt 3  *   .0   .0   .0   .0   .0   .0   .0   .0
 4. Recpt 4  *   .0   .0   .0   .0   .0   .0   .0   .0
 5. Recpt 5  *   .0   .0   .0   .0   .0   .0   .0   .0
 6. Recpt 6  *   .0   .0   .0   .0   .0   .0   .0   .0
 7. Recpt 7  *   .0   .0   .0   .0   .0   .0   .0   .0
 8. Recpt 8  *   .0   .0   .0   .0   .0   .0   .0   .0
 9. Recpt 9  *   .0   .0   .0   .0   .0   .0   .0   .0
10. Recpt 10 *   .0   .0   .0   .0   .0   .0   .0   .0
11. Recpt 11 *   .0   .0   .0   .0   .0   .0   .0   .0
12. Recpt 12 *   .0   .0   .0   .0   .0   .0   .0   .0
13. Recpt 13 *   .0   .0   .0   .0   .0   .0   .0   .0
14. Recpt 14 *   .0   .0   .0   .0   .0   .0   .0   .0
15. Recpt 15 *   .0   .0   .0   .0   .0   .0   .0   .0
16. Recpt 16 *   .0   .0   .0   .0   .0   .0   .0   .0
17. Recpt 17 *   .0   .0   .0   .0   .0   .0   .0   .0
18. Recpt 18 *   .0   .0   .0   .0   .0   .0   .0   .0
19. Recpt 19 *   .0   .0   .0   .0   .0   .0   .0   .0
20. Recpt 20 *   .0   .0   .0   .0   .0   .0   .0   .0
```

```
CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   1

    JOB: Pine Street & Main Street 2030 pm
    RUN: Hour 1           (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
     U=   1.0 M/S             Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE            VD=    .0 CM/S
  CLAS=     7 (G)             VS=    .0 CM/S
  MIXH= 1000. M              AMB=    .0 PPM
 SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	363	2.2	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	1287	2.2	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	359	2.2	.0	10.0
D. Main EBD	0	-4	150	-4	AG	1599	2.2	.0	10.0
E. Main WBLA	150	0	0	0	AG	196	2.2	.0	10.0
F. Main WBTA	150	4	0	4	AG	778	2.2	.0	10.0
G. Main WBRA	150	6	0	6	AG	153	2.2	.0	10.0
H. Main WBD	0	4	-150	4	AG	1339	2.2	.0	10.0
I. Pine NBLA	0	-150	0	0	AG	178	2.2	.0	10.0
J. Pine NBTA	4	-150	4	0	AG	255	2.2	.0	10.0
K. Pine NBRA	6	-150	6	0	AG	156	2.2	.0	10.0
L. Pine NBD	4	0	4	150	AG	771	2.2	.0	10.0
M. Pine SBLA	0	150	0	0	AG	156	2.2	.0	10.0
N. Pine SBTA	-4	150	-4	0	AG	445	2.2	.0	10.0
O. Pine SBRA	-6	150	-6	0	AG	383	2.2	.0	10.0
P. Pine SBD	-4	0	-4	-150	AG	1000	2.2	.0	10.0

```
         CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                  JUNE 1989 VERSION
                  PAGE   2

             JOB: Pine Street & Main Street 2030 pm
             RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
  1. Recpt 1  *    -14    -16   1.8
  2. Recpt 2  *    -14    -36   1.8
  3. Recpt 3  *    -14    -56   1.8
  4. Recpt 4  *    -34    -16   1.8
  5. Recpt 5  *    -54    -16   1.8
  6. Recpt 6  *    -16     14   1.8
  7. Recpt 7  *    -36     14   1.8

  8. Recpt 8  *    -56     14   1.8
  9. Recpt 9  *    -16     34   1.8
 10. Recpt 10 *    -16     54   1.8
 11. Recpt 11 *     16    -14   1.8
 12. Recpt 12 *     36    -14   1.8
 13. Recpt 13 *     56    -14   1.8
 14. Recpt 14 *     16    -34   1.8
 15. Recpt 15 *     16    -54   1.8
 16. Recpt 16 *     14     16   1.8
 17. Recpt 17 *     14     36   1.8
 18. Recpt 18 *     14     56   1.8
 19. Recpt 19 *     34     16   1.8
 20. Recpt 20 *     54     16   1.8
```

```
CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   3

     JOB: Pine Street & Main Street 2030 pm
     RUN: Hour 1           (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.4	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	12.	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	11.	.3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	69.	.3	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	73.	.4	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	106.	.4	.0	.0	.0	.1	.0	.0	.0	.0
7. Recpt 7	110.	.4	.0	.0	.0	.0	.0	.0	.0	.1
8. Recpt 8	106.	.4	.0	.0	.0	.0	.0	.0	.0	.1
9. Recpt 9	166.	.3	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	167.	.3	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	285.	.4	.0	.1	.0	.0	.0	.0	.0	.1
12. Recpt 12	283.	.4	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	282.	.4	.0	.0	.0	.1	.0	.0	.0	.0
14. Recpt 14	344.	.3	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.3	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	253.	.4	.0	.0	.0	.0	.0	.0	.0	.1
17. Recpt 17	200.	.3	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	196.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	255.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	257.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Pine Street & Main Street 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

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        CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                 JUNE 1989 VERSION
                 PAGE   1

            JOB: Main Street & Montecito Road 2030 am
            RUN: Hour 1           (WORST CASE ANGLE)
      POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
      U=   1.0 M/S             Z0= 100. CM           ALT=     0. (M)
    BRG= WORST CASE            VD=    .0 CM/S
   CLAS=     7 (G)             VS=    .0 CM/S
   MIXH= 1000. M              AMB=    .0 PPM
  SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	223	2.2	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	763	2.2	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	45	2.2	.0	10.0
D. Main EBD	0	-4	150	-4	AG	994	2.2	.0	10.0
E. Main WBLA	150	0	0	0	AG	12	2.2	.0	10.0
F. Main WBTA	150	4	0	4	AG	1181	2.2	.0	10.0
G. Main WBRA	150	6	0	6	AG	121	2.2	.0	10.0
H. Main WBD	0	4	-150	4	AG	1476	2.2	.0	10.0
I. Mont NBLA	0	-150	0	0	AG	21	2.2	.0	10.0
J. Mont NBTA	4	-150	4	0	AG	8	2.2	.0	10.0
K. Mont NBRA	6	-150	6	0	AG	33	2.2	.0	10.0
L. Mont NBD	4	0	4	150	AG	352	2.2	.0	10.0
M. Mont SBLA	0	150	0	0	AG	198	2.2	.0	10.0
N. Mont SBTA	-4	150	-4	0	AG	17	2.2	.0	10.0
O. Mont SBRA	-6	150	-6	0	AG	274	2.2	.0	10.0
P. Mont SBD	-4	0	-4	-150	AG	74	2.2	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Main Street & Montecito Road 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Main Street & Montecito Road 2030 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	13.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	10.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	9.	.1	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	69.	.2	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	73.	.2	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	105.	.3	.0	.0	.0	.0	.0	.1	.0	.0
7. Recpt 7	104.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	103.	.3	.0	.0	.0	.0	.0	.0	.0	.1
9. Recpt 9	115.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	124.	.1	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	285.	.3	.0	.0	.0	.0	.0	.0	.0	.1
12. Recpt 12	285.	.3	.0	.0	.0	.0	.0	.0	.0	.1
13. Recpt 13	285.	.3	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	348.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	350.	.1	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	254.	.3	.0	.0	.0	.0	.0	.0	.0	.1
17. Recpt 17	244.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	236.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	256.	.3	.0	.0	.0	.0	.0	.0	.0	.1
20. Recpt 20	257.	.3	.0	.0	.0	.0	.0	.0	.0	.0

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   4

              JOB: Main Street & Montecito Road 2030 am
              RUN: Hour 1            (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE)   (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Main Street & Montecito Road 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=   1.0 M/S            Z0= 100. CM            ALT=     0. (M)
 BRG= WORST CASE           VD=    .0 CM/S
CLAS=     7 (G)            VS=    .0 CM/S
MIXH= 1000. M             AMB=    .0 PPM
SIGTH=   10. DEGREES     TEMP= 18.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Main EBLA	-150	0	0	0	AG	315	2.2	.0	10.0
B. Main EBTA	-150	-4	0	-4	AG	1238	2.2	.0	10.0
C. Main EBRA	-150	-6	0	-6	AG	119	2.2	.0	10.0
D. Main EBD	0	-4	150	-4	AG	1457	2.2	.0	10.0
E. Main WBLA	150	0	0	0	AG	53	2.2	.0	10.0
F. Main WBTA	150	4	0	4	AG	1180	2.2	.0	10.0
G. Main WBRA	150	6	0	6	AG	102	2.2	.0	10.0
H. Main WBD	0	4	-150	4	AG	1470	2.2	.0	10.0
I. Mont NBLA	0	-150	0	0	AG	65	2.2	.0	10.0
J. Mont NBTA	4	-150	4	0	AG	45	2.2	.0	10.0
K. Mont NBRA	6	-150	6	0	AG	75	2.2	.0	10.0
L. Mont NBD	4	0	4	150	AG	462	2.2	.0	10.0
M. Mont SBLA	0	150	0	0	AG	144	2.2	.0	10.0
N. Mont SBTA	-4	150	-4	0	AG	47	2.2	.0	10.0
O. Mont SBRA	-6	150	-6	0	AG	225	2.2	.0	10.0
P. Mont SBD	-4	0	-4	-150	AG	219	2.2	.0	10.0

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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: Main Street & Montecito Road 2030 pm
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


  III.  RECEPTOR LOCATIONS

                 *    COORDINATES (M)
    RECEPTOR     *    X      Y      Z
  ------------*--------------------
   1. Recpt 1   *    -14    -16   1.8
   2. Recpt 2   *    -14    -36   1.8
   3. Recpt 3   *    -14    -56   1.8
   4. Recpt 4   *    -34    -16   1.8
   5. Recpt 5   *    -54    -16   1.8
   6. Recpt 6   *    -16     14   1.8
   7. Recpt 7   *    -36     14   1.8

   8. Recpt 8   *    -56     14   1.8
   9. Recpt 9   *    -16     34   1.8
  10. Recpt 10 *    -16     54   1.8
  11. Recpt 11 *     16    -14   1.8
  12. Recpt 12 *     36    -14   1.8
  13. Recpt 13 *     56    -14   1.8
  14. Recpt 14 *     16    -34   1.8
  15. Recpt 15 *     16    -54   1.8
  16. Recpt 16 *     14     16   1.8
  17. Recpt 17 *     14     36   1.8
  18. Recpt 18 *     14     56   1.8
  19. Recpt 19 *     34     16   1.8
  20. Recpt 20 *     54     16   1.8
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Main Street & Montecito Road 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	287.	.3	.0	.1	.0	.0	.0	.0	.0	.1
2. Recpt 2	11.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	10.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	69.	.3	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	73.	.3	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	105.	.3	.0	.0	.0	.1	.0	.1	.0	.0
7. Recpt 7	105.	.3	.0	.0	.0	.1	.0	.0	.0	.0
8. Recpt 8	105.	.3	.0	.0	.0	.0	.0	.0	.0	.1
9. Recpt 9	115.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	124.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	285.	.3	.0	.1	.0	.0	.0	.0	.0	.1
12. Recpt 12	284.	.3	.0	.0	.0	.0	.0	.0	.0	.1
13. Recpt 13	284.	.3	.0	.0	.0	.1	.0	.0	.0	.0
14. Recpt 14	347.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	349.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	253.	.3	.0	.0	.0	.0	.0	.0	.0	.1
17. Recpt 17	244.	.2	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	236.	.2	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	255.	.3	.0	.0	.0	.0	.0	.0	.0	.1
20. Recpt 20	257.	.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Main Street & Montecito Road 2030 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR67 and Dye Road 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	18.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Dye EBLA	-150	0	0	0	AG	95	2.2	.0	10.0
B. Dye EBTA	-150	-4	0	-4	AG	26	2.2	.0	10.0
C. Dye EBRA	-150	-6	0	-6	AG	10	2.2	.0	10.0
D. Dye EBD	0	-4	150	-4	AG	234	2.2	.0	10.0
E. Dye WBLA	150	0	0	0	AG	549	2.2	.0	10.0
F. Dye WBTA	150	4	0	4	AG	78	2.2	.0	10.0
G. Dye WBRA	150	6	0	6	AG	44	2.2	.0	10.0
H. Dye WBD	0	4	-150	4	AG	222	2.2	.0	10.0
I. SR67 NBLA	0	-150	0	0	AG	36	2.2	.0	10.0
J. SR67 NBTA	4	-150	4	0	AG	611	2.2	.0	10.0
K. SR67 NBRA	6	-150	6	0	AG	157	2.2	.0	10.0
L. SR67 NBD	4	0	4	150	AG	750	2.2	.0	10.0
M. SR67 SBLA	0	150	0	0	AG	51	2.2	.0	10.0
N. SR67 SBTA	-4	150	-4	0	AG	1251	2.2	.0	10.0
O. SR67 SBRA	-6	150	-6	0	AG	108	2.2	.0	10.0
P. SR67 SBD	-4	0	-4	-150	AG	1810	2.2	.0	10.0

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: SR67 and Dye Road 2010 am
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
 1. Recpt 1  *    -14    -16   1.8
 2. Recpt 2  *    -14    -36   1.8
 3. Recpt 3  *    -14    -56   1.8
 4. Recpt 4  *    -34    -16   1.8
 5. Recpt 5  *    -54    -16   1.8
 6. Recpt 6  *    -16     14   1.8
 7. Recpt 7  *    -36     14   1.8

 8. Recpt 8  *    -56     14   1.8
 9. Recpt 9  *    -16     34   1.8
10. Recpt 10 *    -16     54   1.8
11. Recpt 11 *     16    -14   1.8
12. Recpt 12 *     36    -14   1.8
13. Recpt 13 *     56    -14   1.8
14. Recpt 14 *     16    -34   1.8
15. Recpt 15 *     16    -54   1.8
16. Recpt 16 *     14     16   1.8
17. Recpt 17 *     14     36   1.8
18. Recpt 18 *     14     56   1.8
19. Recpt 19 *     34     16   1.8
20. Recpt 20 *     54     16   1.8
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: SR67 and Dye Road 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	164.	.3	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	20.	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	16.	.3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	78.	.2	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	80.	.2	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	164.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	102.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	100.	.2	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	165.	.3	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	166.	.3	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	343.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	334.	.2	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	292.	.2	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	344.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	195.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	194.	.3	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	192.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	206.	.2	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	214.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: SR67 and Dye Road 2010 am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P
	*				CONC/LINK (PPM)				
1. Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.2
2. Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.1
3. Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.2
4. Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	*	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	*	.0	.0	.0	.0	.0	.0	.0	.2
7. Recpt 7	*	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	*	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	*	.0	.0	.0	.0	.0	.0	.0	.1
10. Recpt 10	*	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	*	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	*	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	*	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	*	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	*	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	*	.0	.0	.0	.0	.0	.0	.0	.1
17. Recpt 17	*	.0	.0	.0	.0	.0	.0	.0	.1
18. Recpt 18	*	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	*	.0	.0	.0	.0	.0	.0	.0	.0
20. Recpt 20	*	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR67 and Dye Road 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 18.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Dye EBLA	-150	0	0	0	AG	226	7.5	.0	10.0
B. Dye EBTA	-150	-4	0	-4	AG	116	7.5	.0	10.0
C. Dye EBRA	-150	-6	0	-6	AG	14	7.5	.0	10.0
D. Dye EBD	0	-4	150	-4	AG	572	7.5	.0	10.0
E. Dye WBLA	150	0	0	0	AG	77	7.5	.0	10.0
F. Dye WBTA	150	4	0	4	AG	18	7.5	.0	10.0
G. Dye WBRA	150	6	0	6	AG	37	7.5	.0	10.0
H. Dye WBD	0	4	-150	4	AG	141	7.5	.0	10.0
I. SR67 NBLA	0	-150	0	0	AG	9	7.5	.0	10.0
J. SR67 NBTA	4	-150	4	0	AG	1082	7.5	.0	10.0
K. SR67 NBRA	6	-150	6	0	AG	361	7.5	.0	10.0
L. SR67 NBD	4	0	4	150	AG	1345	7.5	.0	10.0
M. SR67 SBLA	0	150	0	0	AG	95	7.5	.0	10.0
N. SR67 SBTA	-4	150	-4	0	AG	801	7.5	.0	10.0
O. SR67 SBRA	-6	150	-6	0	AG	114	7.5	.0	10.0
P. SR67 SBD	-4	0	-4	-150	AG	892	7.5	.0	10.0

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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: SR67 and Dye Road 2010 pm
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Recpt 1	-14	-16	1.8
2. Recpt 2	-14	-36	1.8
3. Recpt 3	-14	-56	1.8
4. Recpt 4	-34	-16	1.8
5. Recpt 5	-54	-16	1.8
6. Recpt 6	-16	14	1.8
7. Recpt 7	-36	14	1.8
8. Recpt 8	-56	14	1.8
9. Recpt 9	-16	34	1.8
10. Recpt 10	-16	54	1.8
11. Recpt 11	16	-14	1.8
12. Recpt 12	36	-14	1.8
13. Recpt 13	56	-14	1.8
14. Recpt 14	16	-34	1.8
15. Recpt 15	16	-54	1.8
16. Recpt 16	14	16	1.8
17. Recpt 17	14	36	1.8
18. Recpt 18	14	56	1.8
19. Recpt 19	34	16	1.8
20. Recpt 20	54	16	1.8

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         CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                  JUNE 1989 VERSION
                  PAGE   3

             JOB: SR67 and Dye Road 2010 pm
             RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	15.	.9	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	14.	.9	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	14.	.9	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	79.	.6	.0	.0	.0	.2	.0	.0	.0	.0
5. Recpt 5	80.	.5	.0	.0	.0	.1	.0	.0	.0	.0
6. Recpt 6	163.	.8	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	106.	.6	.0	.0	.0	.2	.0	.0	.0	.0
8. Recpt 8	102.	.5	.0	.0	.0	.1	.0	.0	.0	.0
9. Recpt 9	164.	.8	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	165.	.9	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	343.	1.0	.0	.0	.0	.1	.0	.0	.0	.0
12. Recpt 12	290.	.6	.0	.0	.0	.2	.0	.0	.0	.0
13. Recpt 13	285.	.6	.0	.0	.0	.2	.0	.0	.0	.0
14. Recpt 14	344.	.9	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	345.	.9	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	194.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	192.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
18. Recpt 18	192.	.9	.0	.0	.0	.0	.0	.0	.0	.0
19. Recpt 19	203.	.6	.0	.0	.0	.1	.0	.0	.0	.0
20. Recpt 20	210.	.5	.0	.0	.0	.1	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: SR67 and Dye Road 2010 pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. Recpt 1	.0	.0	.0	.4	.0	.3	.0	.0
2. Recpt 2	.0	.0	.0	.3	.0	.2	.0	.2
3. Recpt 3	.0	.1	.0	.2	.0	.1	.0	.3
4. Recpt 4	.0	.1	.0	.0	.0	.0	.0	.1
5. Recpt 5	.0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	.0	.3	.1	.0	.0	.0	.0	.3
7. Recpt 7	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	.0	.3	.1	.0	.0	.1	.0	.2
10. Recpt 10	.0	.2	.0	.0	.0	.2	.0	.1
11. Recpt 11	.0	.0	.0	.5	.0	.2	.0	.0
12. Recpt 12	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	.0	.2	.0	.3	.0	.2	.0	.0
15. Recpt 15	.0	.3	.1	.2	.0	.2	.0	.0
16. Recpt 16	.0	.4	.2	.0	.0	.0	.0	.3
17. Recpt 17	.0	.3	.1	.2	.0	.0	.0	.2
18. Recpt 18	.0	.2	.0	.4	.0	.0	.0	.2
19. Recpt 19	.0	.2	.0	.0	.0	.0	.0	.2
20. Recpt 20	.0	.1	.0	.0	.0	.0	.0	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: A Moore and SR67 2030 am peak
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 10. DEGREES	TEMP= 18.0 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. AM EBLA	-150	0	0	0	AG	29	2.2	.0	10.0
B. AM EBRA	-150	-4	0	-4	AG	229	2.2	.0	10.0
C. AM WBD	0	4	-150	4	AG	464	2.2	.0	10.0
D. SR67 NBLA	0	-150	0	0	AG	250	2.2	.0	10.0
E. SR67 NBTA	4	-150	4	0	AG	542	2.2	.0	10.0
F. SR67 NBD	4	0	4	150	AG	571	2.2	.0	10.0
G. SR67 SBRA	-4	150	-4	0	AG	214	2.2	.0	10.0
H. SR67 SBTA	0	150	0	0	AG	2162	2.2	.0	10.0
I. SR67 SBD	-4	0	-4	-150	AG	2391	2.2	.0	10.0

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              CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                       JUNE 1989 VERSION
                       PAGE   2

                  JOB: A Moore and SR67 2030 am peak
                  RUN: Hour 1           (WORST CASE ANGLE)
            POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	14	-60	1.8
2. Recpt 2	14	-40	1.8
3. Recpt 3	14	-20	1.8
4. Recpt 4	14	0	1.8
5. Recpt 5	14	20	1.8
6. Recpt 6	14	40	1.8
7. Recpt 7	14	60	1.8
8. Recpt 8	-14	-14	1.8
9. Recpt 9	-34	-14	1.8
10. Recpt 10	-54	-14	1.8
11. Recpt 11	-14	-34	1.8
12. Recpt 12	-14	-54	1.8
13. Recpt 13	-14	14	1.8
14. Recpt 14	-34	14	1.8
15. Recpt 15	-54	14	1.8
16. Recpt 16	-14	34	1.8
17. Recpt 17	-14	54	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: A Moore and SR67 2030 am peak
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	339.	.3	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	201.	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	345.	.3	.0	.0	.0	.0	.0	.0	.0	.2
4. Recpt 4	343.	.3	.0	.0	.0	.0	.0	.0	.0	.2
5. Recpt 5	218.	.3	.0	.0	.0	.0	.0	.0	.0	.1
6. Recpt 6	200.	.3	.0	.0	.0	.0	.0	.0	.0	.1
7. Recpt 7	196.	.3	.0	.0	.0	.0	.0	.0	.0	.1
8. Recpt 8	26.	.3	.0	.0	.0	.0	.0	.0	.0	.2
9. Recpt 9	25.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	34.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	18.	.4	.0	.0	.0	.0	.0	.0	.0	.1
12. Recpt 12	15.	.4	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	166.	.4	.0	.0	.0	.0	.0	.0	.0	.0
14. Recpt 14	155.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	146.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	169.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. Recpt 17	168.	.3	.0	.0	.0	.0	.0	.0	.0	.0

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   4

              JOB: A Moore and SR67 2030 am peak
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

             *
             * (PPM)
 RECEPTOR    *   I
------------*-----
 1. Recpt 1  *   .1
 2. Recpt 2  *   .2
 3. Recpt 3  *   .0
 4. Recpt 4  *   .0
 5. Recpt 5  *   .0
 6. Recpt 6  *   .1
 7. Recpt 7  *   .0
 8. Recpt 8  *   .0
 9. Recpt 9  *   .0
10. Recpt 10 *   .0
11. Recpt 11 *   .2
12. Recpt 12 *   .2
13. Recpt 13 *   .2
14. Recpt 14 *   .1
15. Recpt 15 *   .0
16. Recpt 16 *   .2
17. Recpt 17 *   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: A Moore and SR67 2030 pm peak
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=   1.0 M/S             Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE            VD=    .0 CM/S
     CLAS=     7 (G)             VS=    .0 CM/S
     MIXH= 1000. M              AMB=    .0 PPM
    SIGTH=   10. DEGREES       TEMP= 18.0 DEGREE (C)


 II.  LINK VARIABLES

     LINK      *  LINK COORDINATES (M)   *              EF     H     W
  DESCRIPTION  *   X1     Y1     X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
---------------*-------------------------*------------------------------
A. AM EBLA     *  -150     0      0      0 *  AG     40   2.2     .0  10.0
B. AM EBRA     *  -150    -4      0     -4 *  AG     94   2.2     .0  10.0
C. AM WBD      *     0     4   -150      4 *  AG    687   2.2     .0  10.0
D. SR67 NBLA   *     0  -150      0      0 *  AG    495   2.2     .0  10.0
E. SR67 NBTA   *     4  -150      4      0 *  AG   1786   2.2     .0  10.0
F. SR67 NBD    *     4     0      4    150 *  AG   1826   2.2     .0  10.0
G. SR67 SBRA   *    -4   150     -4      0 *  AG    192   2.2     .0  10.0
H. SR67 SBTA   *     0   150      0      0 *  AG    831   2.2     .0  10.0
I. SR67 SBD    *    -4     0     -4   -150 *  AG    925   2.2     .0  10.0
```

```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: A Moore and SR67 2030 pm peak
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	14	-60	1.8
2. Recpt 2	14	-40	1.8
3. Recpt 3	14	-20	1.8
4. Recpt 4	14	0	1.8
5. Recpt 5	14	20	1.8
6. Recpt 6	14	40	1.8
7. Recpt 7	14	60	1.8
8. Recpt 8	-14	-14	1.8
9. Recpt 9	-34	-14	1.8
10. Recpt 10	-54	-14	1.8
11. Recpt 11	-14	-34	1.8
12. Recpt 12	-14	-54	1.8
13. Recpt 13	-14	14	1.8
14. Recpt 14	-34	14	1.8
15. Recpt 15	-54	14	1.8
16. Recpt 16	-14	34	1.8
17. Recpt 17	-14	54	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: A Moore and SR67 2030 pm peak
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	344.	.3	.0	.0	.0	.0	.2	.0	.0	.0
2. Recpt 2	199.	.3	.0	.0	.0	.0	.2	.0	.0	.0
3. Recpt 3	197.	.3	.0	.0	.0	.0	.2	.0	.0	.0
4. Recpt 4	196.	.3	.0	.0	.0	.0	.2	.0	.0	.0
5. Recpt 5	196.	.3	.0	.0	.0	.0	.2	.0	.0	.0
6. Recpt 6	196.	.4	.0	.0	.0	.0	.0	.1	.0	.0
7. Recpt 7	194.	.4	.0	.0	.0	.0	.0	.2	.0	.0
8. Recpt 8	20.	.3	.0	.0	.0	.0	.0	.1	.0	.0
9. Recpt 9	26.	.2	.0	.0	.0	.0	.0	.0	.0	.0
10. Recpt 10	34.	.2	.0	.0	.0	.0	.0	.0	.0	.0
11. Recpt 11	16.	.3	.0	.0	.0	.0	.0	.1	.0	.0
12. Recpt 12	15.	.3	.0	.0	.0	.0	.0	.0	.0	.0
13. Recpt 13	165.	.4	.0	.0	.0	.0	.1	.0	.0	.0
14. Recpt 14	154.	.2	.0	.0	.0	.0	.0	.0	.0	.0
15. Recpt 15	146.	.2	.0	.0	.0	.0	.0	.0	.0	.0
16. Recpt 16	167.	.3	.0	.0	.0	.0	.1	.0	.0	.0
17. Recpt 17	168.	.3	.0	.0	.0	.0	.0	.0	.0	.0

```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   4

               JOB: A Moore and SR67 2030 pm peak
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

             *
             * (PPM)
  RECEPTOR   *   I
 ------------*-----
 1. Recpt 1  *   .0
 2. Recpt 2  *   .0
 3. Recpt 3  *   .0
 4. Recpt 4  *   .0
 5. Recpt 5  *   .0
 6. Recpt 6  *   .0
 7. Recpt 7  *   .0
 8. Recpt 8  *   .0
 9. Recpt 9  *   .0
10. Recpt 10 *   .0
11. Recpt 11 *   .0
12. Recpt 12 *   .0
13. Recpt 13 *   .1
14. Recpt 14 *   .0
15. Recpt 15 *   .0
16. Recpt 16 *   .0
17. Recpt 17 *   .0
```

Operational Health Risk Assessment – HARP Outputs

```
This file: C:\HARPExpress\Mranch\Rep_Can_70yr_Inh_AllRec_AllSrc_AllCh_ByRec_Site.txt

Created by HARP Version 1.0  Build 23.02.21
Uses ISC Version 99155
Uses BPIP Version 95086
Creation date: 1/19/2007 4:26:42 PM


EXCEPTION REPORT
   (there have been no changes or exceptions)

INPUT FILES:
   Source-Receptor file: C:\HARPExpress\Mranch\Mranch.mta
   Averaging period adjustment factors file: not applicable
   Emission rates file: none
   Site parameters file: C:\HARPExpress\MRanch\demo.sit



Screening mode is OFF

Exposure duration: 70 year (adult resident)
Analysis method:   80th Percentile Point Estimate (inhalation pathway only)
Health effect:     Cancer Risk
Receptor(s):       All
Sources(s):        All
Chemicals(s):      All

SITE PARAMETERS

   Inhalation only. Site parameters not applicable.

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS
CHEM  CAS        ABBREVIATION    POLLUTANT NAME                                                            BACKGROUND (ug/m^3)
0001  9901       DieselExhPM     Diesel engine exhaust, particulate matter                                 0.000E+00

EMISSIONS DATA SOURCE:
CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK1   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *
```

```
EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK2   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK3   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK4   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK5   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK6   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK7   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK8   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK9   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK10   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK11   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
```

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CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK12   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK13   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK14   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK15   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK16   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK17   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK18   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK19   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK20   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *
```

```
EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK21   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK22   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK23   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK24   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK25   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0        0.010147               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK26   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK27   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK28   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK29   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK30   STK=1   NAME=Facility 1  EMS (lbs/yr)
```

```
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK31   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK32   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK33   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK34   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK35   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK36   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK37   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK38   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
9901            DieselExhPM                    1               0       0.0122275               *

EMISSIONS FOR FACILITY FAC=Mranch   CO=*   DEV=PR1   PRO=STK39   STK=1   NAME=Facility 1  EMS (lbs/yr)
SOURCE MULTIPLIER=1
CAS             ABBREV                MULTIPLIER     BG (ug/m^3)   AVRG (lbs/yr)    MAX (lbs/hr)
```

9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK40 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK41 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK42 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK43 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK44 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK45 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

EMISSIONS FOR FACILITY FAC=Mranch CO=* DEV=PR1 PRO=STK46 STK=1 NAME=Facility 1 EMS (lbs/yr)
SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
9901	DieselExhPM	1	0	0.0122275	*

CANCER RISK REPORT

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL
0001	5.57E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-09
0002	5.42E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.42E-09
0003	5.29E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.29E-09
0004	5.10E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.10E-09
0005	5.05E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.05E-09
0006	6.32E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.32E-09
0007	6.06E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.06E-09
0008	5.73E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.73E-09

0009	5.49E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.49E-09
0010	5.21E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.21E-09
0011	7.22E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.22E-09
0012	6.81E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.81E-09
0013	6.78E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.78E-09
0014	6.21E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.21E-09
0015	5.86E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.86E-09
0016	4.86E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.86E-09
0017	4.83E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.83E-09
0018	4.97E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.97E-09
0019	4.82E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-09
0020	5.04E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.04E-09
0021	5.18E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-09
0022	5.11E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E-09
0023	4.97E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.97E-09
0024	5.12E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.12E-09
0025	5.05E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.05E-09
0026	5.50E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.50E-09
0027	5.70E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.70E-09
0028	5.76E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.76E-09
0029	5.72E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-09
0030	5.61E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.61E-09
0031	5.48E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.48E-09
0032	5.56E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.56E-09
0033	5.27E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.27E-09
0034	5.06E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E-09
0035	5.41E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.41E-09
0036	5.91E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.91E-09
0037	5.98E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.98E-09
0038	6.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-09
0039	6.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-09
0040	6.49E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.49E-09
0041	6.42E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.42E-09
0042	6.18E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-09
0043	5.94E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-09
0044	6.04E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.04E-09
0045	6.20E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-09
0046	6.20E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.20E-09
0047	6.40E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.40E-09
0048	7.66E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.66E-09
0049	7.35E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-09
0050	7.23E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.23E-09
0051	7.16E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.16E-09
0052	7.02E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.02E-09
0053	7.21E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.21E-09
0054	7.29E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.29E-09
0055	7.37E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.37E-09

0056	8.14E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.14E-09
0057	8.07E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.07E-09
0058	8.09E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-09
0059	8.12E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.12E-09
0060	8.14E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.14E-09
0061	8.29E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.29E-09
0062	8.45E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.45E-09
0063	8.60E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.60E-09
0064	8.18E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.18E-09
0065	8.22E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.22E-09
0066	8.35E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.35E-09
0067	8.49E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.49E-09
0068	8.77E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.77E-09
0069	9.07E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.07E-09
0070	9.38E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.38E-09
0071	9.74E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.74E-09
0072	7.97E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.97E-09
0073	8.05E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.05E-09
0074	8.23E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.23E-09
0075	8.53E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.53E-09
0076	8.96E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.96E-09
0077	9.49E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.49E-09
0078	1.01E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-08
0079	1.07E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-08
0080	4.51E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.51E-09
0081	4.29E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.29E-09
0082	4.10E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-09
0083	4.08E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.08E-09
0084	3.99E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.99E-09
0085	3.89E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-09
0086	3.43E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.43E-09
0087	2.62E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-09
0088	2.47E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-09
0089	2.25E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-09
0090	2.16E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-09
0091	2.15E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-09
0092	4.98E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.98E-09
0093	4.82E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-09
0094	4.67E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.67E-09
0095	4.54E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-09
0096	4.43E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.43E-09
0097	4.21E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.21E-09
0098	3.72E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09
0099	3.00E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-09
0100	2.65E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-09
0101	2.50E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-09
0102	2.48E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.48E-09

0103	2.50E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-09
0104	5.59E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.59E-09
0105	5.44E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.44E-09
0106	5.28E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.28E-09
0107	5.13E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.13E-09
0108	5.03E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.03E-09
0109	4.79E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-09
0110	4.35E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.35E-09
0111	4.03E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-09
0112	3.02E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-09
0113	3.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-09
0114	3.08E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-09
0115	2.95E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.95E-09
0116	6.35E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E-09
0117	6.19E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.19E-09
0118	6.03E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.03E-09
0119	5.89E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E-09
0120	5.80E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.80E-09
0121	5.65E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-09
0122	5.39E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.39E-09
0123	4.68E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.68E-09
0124	3.65E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.65E-09
0125	4.27E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.27E-09
0126	4.03E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-09
0127	3.96E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-09
0128	7.38E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.38E-09
0129	7.20E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.20E-09
0130	7.02E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.02E-09
0131	6.92E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.92E-09
0132	6.83E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.83E-09

WRF Odor Assessment

SCREEN3 Output Files

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10/17/06

15:34:15
  ***  SCREEN3 MODEL RUN  ***
  *** VERSION DATED 96043 ***

 Montecito Ranch Odor Evaluation

 SIMPLE TERRAIN INPUTS:
    SOURCE TYPE                 =         AREA
    EMISSION RATE (G/(S-M**2))  =      .814800E-07
    SOURCE HEIGHT (M)           =       3.0000
    LENGTH OF LARGER SIDE (M)   =      30.5000
    LENGTH OF SMALLER SIDE (M)  =      30.5000
    RECEPTOR HEIGHT (M)         =       1.8000
    URBAN/RURAL OPTION          =        RURAL
 THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

    MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


 BUOY. FLUX =     .000 M**4/S**3;  MOM. FLUX =     .000 M**4/S**2.

 *** FULL METEOROLOGY ***

 **********************************
 *** SCREEN AUTOMATED DISTANCES ***
 **********************************

 *** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING
DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME  MAX DIR
    (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
 -------  ----------  ----  -----  -----  ------  ------  -------
      1.   .2241        2     1.0    1.0   320.0    3.00     45.
    100.   .5114        6     1.0    1.0 10000.0    3.00     45.
    200.   .3581        6     1.0    1.0 10000.0    3.00     45.
    300.   .2483        6     1.0    1.0 10000.0    3.00     45.
    400.   .1772        6     1.0    1.0 10000.0    3.00     45.
    500.   .1317        6     1.0    1.0 10000.0    3.00     42.
    600.   .1015        6     1.0    1.0 10000.0    3.00     44.
    700.   .8070E-01    6     1.0    1.0 10000.0    3.00     38.
    800.   .6655E-01    6     1.0    1.0 10000.0    3.00     45.
    900.   .5598E-01    6     1.0    1.0 10000.0    3.00     37.
   1000.   .4785E-01    6     1.0    1.0 10000.0    3.00     45.

 MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
     50.   .6315        6     1.0    1.0 10000.0    3.00     45.

 *********************************
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 *** SCREEN DISCRETE DISTANCES ***
 *********************************

 *** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING
DISTANCES ***

   DIST     CONC            U10M   USTK  MIX HT   PLUME  MAX DIR
    (M)   (UG/M**3)   STAB  (M/S)  (M/S)   (M)   HT (M)  (DEG)
 -------  ----------  ----  -----  -----  ------  ------  -------
     91.   .5296        6     1.0    1.0 10000.0    3.00     45.

      ***************************************
      *** SUMMARY OF SCREEN MODEL RESULTS ***
      ***************************************

  CALCULATION        MAX CONC    DIST TO   TERRAIN
   PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
 --------------    -----------   -------   -------
 SIMPLE TERRAIN      .6315          50.        0.

 ***************************************************
 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
 ***************************************************
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10/17/06

15:29:21
  ***  SCREEN3 MODEL RUN  ***
  *** VERSION DATED 96043 ***

 Montecito Ranch Toxics Evaluation

 SIMPLE TERRAIN INPUTS:
    SOURCE TYPE                =         AREA
    EMISSION RATE (G/(S-M**2))  =      1.00000
    SOURCE HEIGHT (M)          =       3.0000
    LENGTH OF LARGER SIDE (M)   =      30.5000
    LENGTH OF SMALLER SIDE (M)  =      30.5000
    RECEPTOR HEIGHT (M)        =       1.8000
    URBAN/RURAL OPTION         =        RURAL
 THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

    MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


 BUOY. FLUX =     .000 M**4/S**3;  MOM. FLUX =     .000 M**4/S**2.

 *** FULL METEOROLOGY ***

 **********************************
 *** SCREEN AUTOMATED DISTANCES ***
 **********************************

 *** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING
DISTANCES ***

   DIST     CONC            U10M   USTK  MIX HT   PLUME  MAX DIR
    (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)  (DEG)
 -------  ----------  ----  -----  -----  ------  ------  -------
      1.   .2750E+07    2     1.0    1.0   320.0    3.00     45.
    100.   .6277E+07    6     1.0    1.0 10000.0    3.00     45.
    200.   .4395E+07    6     1.0    1.0 10000.0    3.00     45.
    300.   .3048E+07    6     1.0    1.0 10000.0    3.00     45.
    400.   .2175E+07    6     1.0    1.0 10000.0    3.00     45.
    500.   .1616E+07    6     1.0    1.0 10000.0    3.00     42.
    600.   .1246E+07    6     1.0    1.0 10000.0    3.00     44.
    700.   .9904E+06    6     1.0    1.0 10000.0    3.00     38.
    800.   .8167E+06    6     1.0    1.0 10000.0    3.00     45.
    900.   .6871E+06    6     1.0    1.0 10000.0    3.00     37.
   1000.   .5873E+06    6     1.0    1.0 10000.0    3.00     45.

 MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
     50.   .7751E+07    6     1.0    1.0 10000.0    3.00     45.

      **************************************
      *** SUMMARY OF SCREEN MODEL RESULTS ***
      **************************************

  CALCULATION        MAX CONC    DIST TO   TERRAIN
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  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      .7751E+07       50.        0.


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** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
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